Copyright 1907, by "THE ARCHITECTURAL RECORD COMPANY." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.

VOL. XXII. No. 2. AUGUST, 1907. WHOLE No. 107

THE ARCHITECTURAL RECORD

CONTENTS

PAGE

THE BANK BUILDINGS OF BALTIMORE 79
Illustrated Article.

THE WEST STREET BUILDING. Cass Gilbert, Architect 102
Illustrated Article.

CIVIC IMPROVEMENTS. A Reply 117
Article. Chas. Mulford Robinson.

BARON HAUSSMANN AND THE TOPOGRAPHICAL TRANSFORMATION OF PARIS UNDER NAPOLEON III 121
Illustrated Article. Edward R. Smith.

DISCOVERY OF AN ORIGINAL CHURCH MODEL, BY A GOTHIC ARCHITECT. (S. Maclou, Rouen) 110
Illustrated Article. A. L. Frothingham.

AMERICAN SCHOOLS OF ARCHITECTURE.—IV. Harvard 134
Illustrated Article. Prof. H. L. Warren.

THE OLD UNION THEOLOGICAL SEMINARY 151
Illustrated Article.

NOTES AND COMMENTS. Illustrated 155
Death of W. L. B. Jenney, Architect and Engineer—Art Gallery for Philadelphia—Chicago Lake Front Legislation—An Enthusiastic Mayor—Reverence for Ancient Glory—A Permanent Plan Commission—Replanning Montreal—European Garden Cities—Civic Centers—The Integrity of the Specification.

PUBLISHED BY

THE ARCHITECTURAL RECORD CO.

President, CLINTON W. SWEET Treasurer, F. W. DODGE
Vice-Pres. & Genl. Mgr., H. W. DESMOND Secretary, F. T. MILLER

11-15 EAST 24TH STREET, MANHATTAN
Telephone, 4430 Madison Square

Subscription (Yearly) $3.00 Published Monthly

TWENTY FIVE CENTS

THE ARCHITECTURAL RECORD CO. NEW YORK

TWENTY FIVE CENTS

OFFICE OF PUBLICATION: No. 11 EAST 24th STREET, NEW YORK CITY.

WESTERN OFFICE: 511 MONADNOCK BLDG., CHICAGO, ILL.

CHVRCH GLASS AND DECORATING COMPANY
OF NEW YORK.

COPYRIGHT, 1907, BY CHURCH GLASS AND DECORATING CO. OF NEW YORK

A LIGHT FROM THE GREAT CHANCEL WINDOW, TRINITY CATHEDRAL,
CLEVELAND — TOD MEMORIAL — HARDMAN GLASS

TWENTY-EIGHT WEST THIRTIETH STREET.

ERECTED BY THEIR DAUGHTER
IN LOVING MEMORY OF
GEORGE MERWIN ATWATER
AND OF
HARRIET ROMEYN ATWATER
BLESSED IS THE MAN WHO WALKETH
NOT IN THE COUNSEL OF THE UNGODLY.
HE SHALL BE LIKE A TREE PLANTED
BY THE RIVERS OF WATER.
HIS LEAF ALSO
SHALL NOT WITHER; AND
WHATSOEVER HE DOETH
SHALL PROSPER.

COPYRIGHT, 1907, BY CHURCH GLASS AND DECORATING CO. OF NEW YORK

MEMORIAL WINDOW IN A CHURCH AT SPRINGFIELD, MASS.
EXECUTED IN AMERICAN OPALESCENT GLASS

The
Architectural Record

Vol. XXII AUGUST, 1907. No. 2.

The Bank Buildings of Baltimore

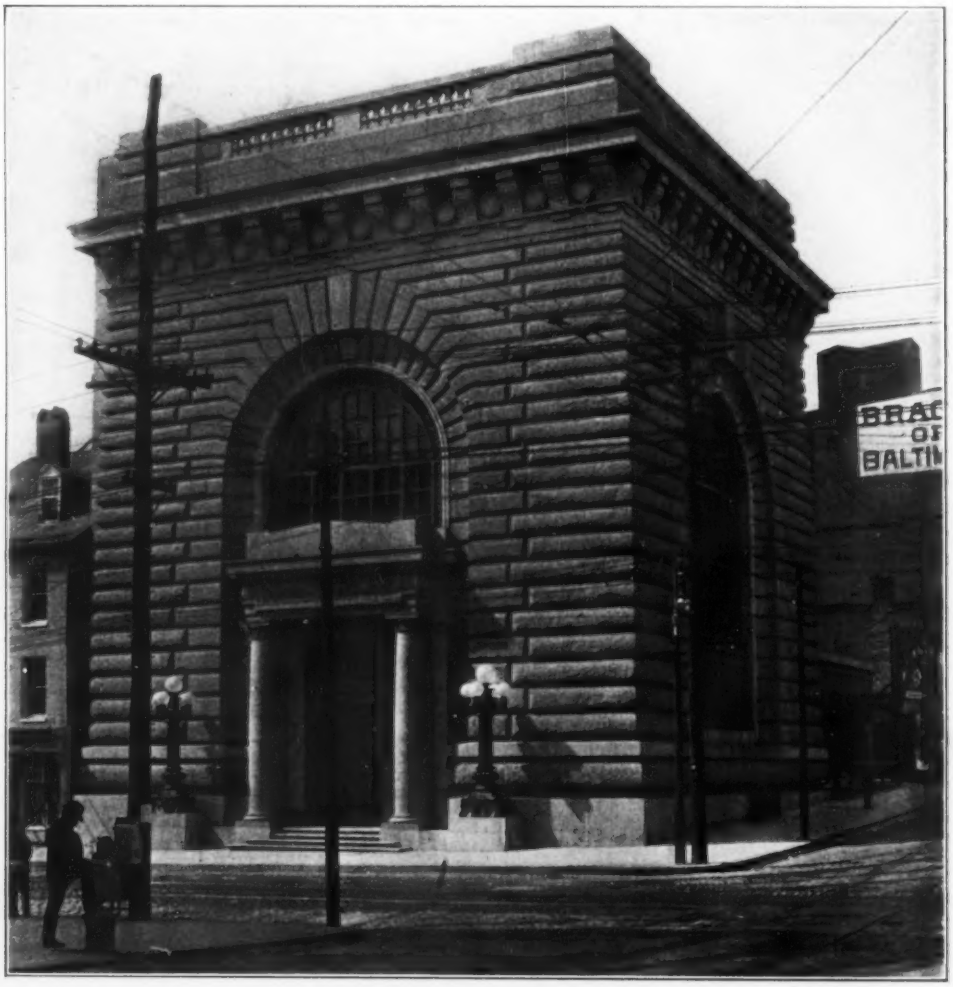
During the past ten years, a very marked change has taken place in what may be called the living accommodations of the banks in the largest American cities. Ten years ago the majority of the large banks all over the country occupied either the ground floors of sky-scrapers, which they rented or owned, or else they occupied buildings which were more than a generation old and which were a source neither of profit nor of prestige. At that time a bank, in case it decided to erect a new house for its own occupation, almost always built a sky-scraper, because it was believed that 'sky-scrapers' were the only structures which would be profitable upon an expensive site in the business centre of a large city. A number of savings banks had erected buildings of some architectural pretensions exclusively for their own occupation, because a savings bank was usually situated on less expensive land in or near a residential district, but one could count upon the fingers of two hands the number of important national banks and trust companies which had erected low modern buildings exclusively for their own habitation, and there was no expectation that they would in this respect pursue a different policy in the future.

During the past ten years, however, the directors of American banks have in many instances seen in this respect a new light. They have found it desirable and profitable to erect low buildings on the most expensive land in the city exclusively for their own occupation; and their reasons for so doing constitute an interesting indication of the transformation which is taking place in the banking business of the United States. This demand for low and architecturally dignified buildings is testimony at once to the increasing prosperity of American banks, and to what may be called a consciousness of their own social position in the world of finance. Their situation has become so strong, they feel themselves to be so firmly established, their surpluses bear such a large proportion to their capital and assets, that they have become veritable financial institutions, and, like all institutions, they want to inhabit a building which shall symbolize their financial stability and exuberance. The old idea was that a huge office building was the best architectural expression of this condition of being permanently plethoric; but it does not require any great discrimination to discern that a huge office building is no source of distinction to the bank which owns and inhabits it. All office buildings look very much alike, and the erection of one by a bank may be an excellent investment, but it has no value as an expression of the peculiar position occupied by a bank with a huge surplus and an impregnable financial standing. It was inevitable that as the banks became more conscious of their permanence and of their wealth they should seek for an architectural symbol which would distinguish them from a man who erects a sky-scraper as an investment.

It is natural, however, that the practice of erecting low buildings of some architectural pretensions should have

Copyright, 1907, by "The Architectural Record Company." All rights reserved.
Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879

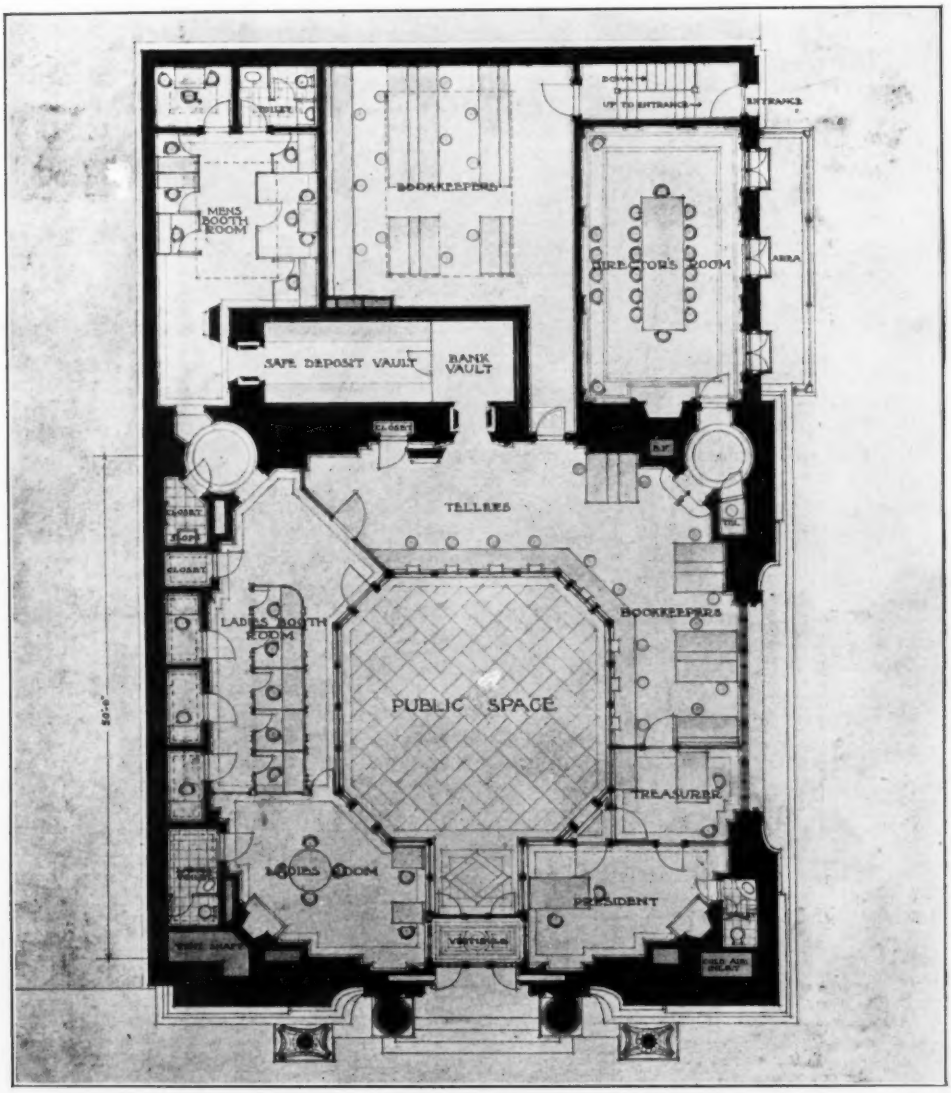
been carried further in the smaller than in the larger cities. The directors of a bank, no matter how huge its surplus may be, will think twice before they erect a one-story building on land which costs from $150 to $300 a square foot; and, as a matter of fact, not very many such buildings have been built in cities like New York and Chicago. In New York, the Chemical National Bank, the National Park Bank, the Knickerbocker Trust Co. and one or two other institutions have contented themselves with low buildings, and the National City Bank is at the writing considering a similar plan for its new home on the site of the old custom-house. Still in the majority of cases the metropolitan banks either own or else are lodged in sky-scrapers, and the same is true of Chicago. It is cities like Buffalo, Cleveland, Washington and the like, in which the banks prefer and can afford low buildings; and it is in another city of this class, whose banks are almost exclusively housed in one-story buildings, erected for the banks' own exclusive occupation. In Baltimore this idea has been carried



PROVIDENT SAVINGS BANK.

Baltimore, Md. Sperry, and York & Sawyer, Associated Architects.

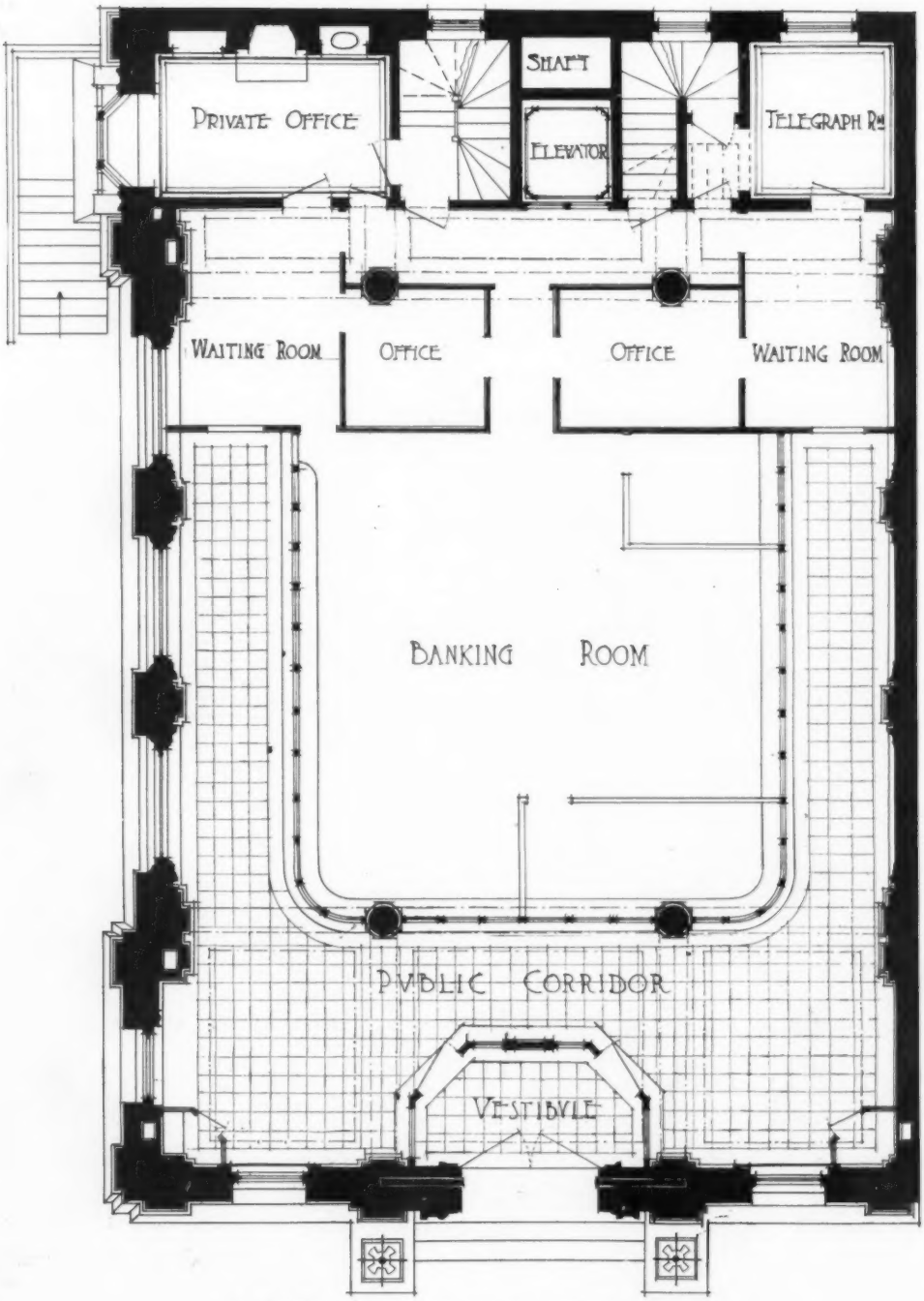
further than in any other American city, and the peculiar prominence of Baltimore in this respect is dependent upon a very numerous and complex set of conditions.



PROVIDENT SAVINGS BANK.

Baltimore, Md. Sperry, and York & Sawyer, Associated Architects.

Baltimore, is, of course, one of the oldest cities in the United States, and it occupies, compared to its population and size, a very important financial position. It is the city in which a large number of southern industrial enterprises are financed, so that its banking capital is larger than that of other cities of the same size. At the same time, being southern in its traditions and sympathies, it is naturally a very conservative place. Ten years ago its leading banks were old and very respectable institutions, some of which

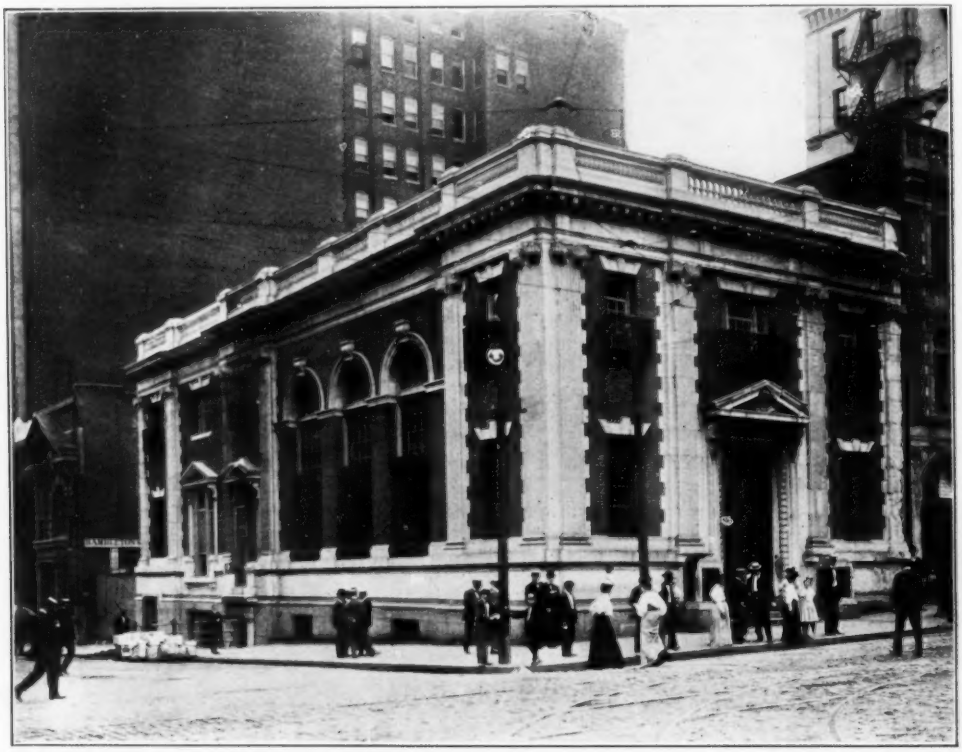


BANKING HOUSE OF ALEX. BROWN & SONS.

Baltimore, Md. Parker & Thomas, Architects.

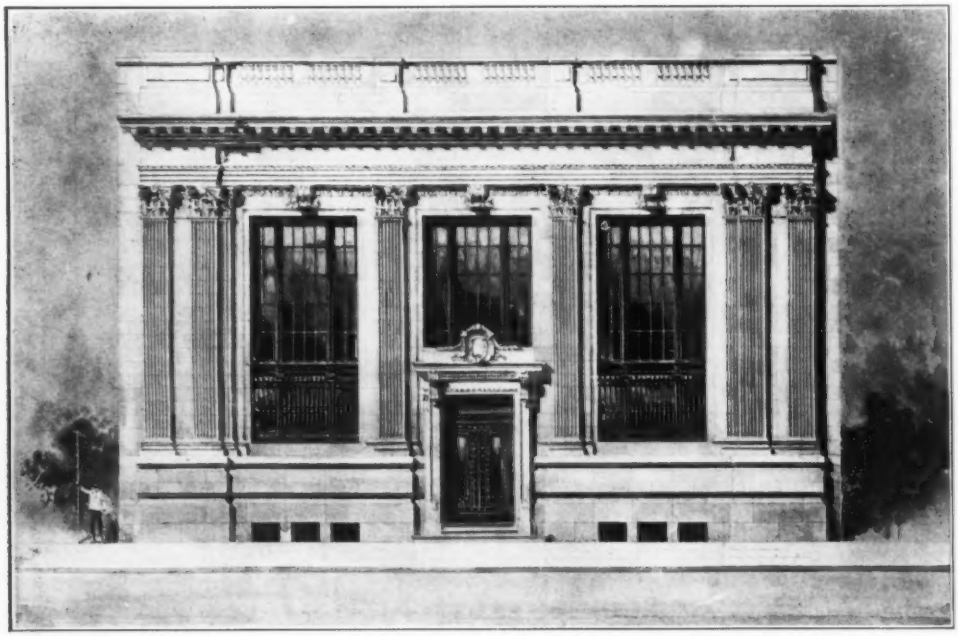
had been in existence under different forms for more than a century. They had become imbedded in the financial life of the city even more firmly than the old families had been imbedded in the city's social life, and with such a well-established situation they did not need at that time to be very enterprising in their methods. The directors were satisfied with a patronage which did not have to be sought, but which came to them because of a long established and confidential association. Certain tradesmen and manufacturers had always dealt with them, and it was expected that the good custom would continue. Under such circumstances it is not strange that the houses which the Baltimore banks inhabited were behind those of other large cities—that they were lacking not only in architectural distinction, but in many new practical conveniences, which had become generally introduced into the banks of other cities. It was not extraordinary that some of the banks which boasted of the largest surpluses and could best afford a suitable modern habitation were housed in the most ordinary buildings.

Ten years ago, however, the banks which carried on a commercial business in Baltimore were either private banking firms or else were organized under the national banking act, and during the past ten years the rapid increase in the number and size of the trust companies, organized under state laws, has revolutionized the banking business of the city. During that period eight out of the eleven local trust companies have come into existence, adding $7,000,000 to the banking capital of Baltimore. As a consequence of this increase in the number of banks the keenest competition was



BANKING HOUSE OF ALEX. BROWN & SONS.
Baltimore, Md. Parker & Thomas, Architects.

substituted for the old easy-going methods, and among the forms which this competition took was the erection of new, more imposing, and more convenient buildings. And when the practice of erecting such buildings began, it was natural in Baltimore that the banks should erect low buildings for their own occupation rather than sky-scrapers. Land is not dear in that city, the banks were rich, and their owners possessed pre-eminently that sense of their institutional character which would prompt them to erect a habitation which symbolized such a standing in the community. The consequence was that even before the disastrous conflagration in February, 1904, a number of the more important banks had either erected new buildings of some architectural distinction or else had renovated and modernized the old structures they occupied.



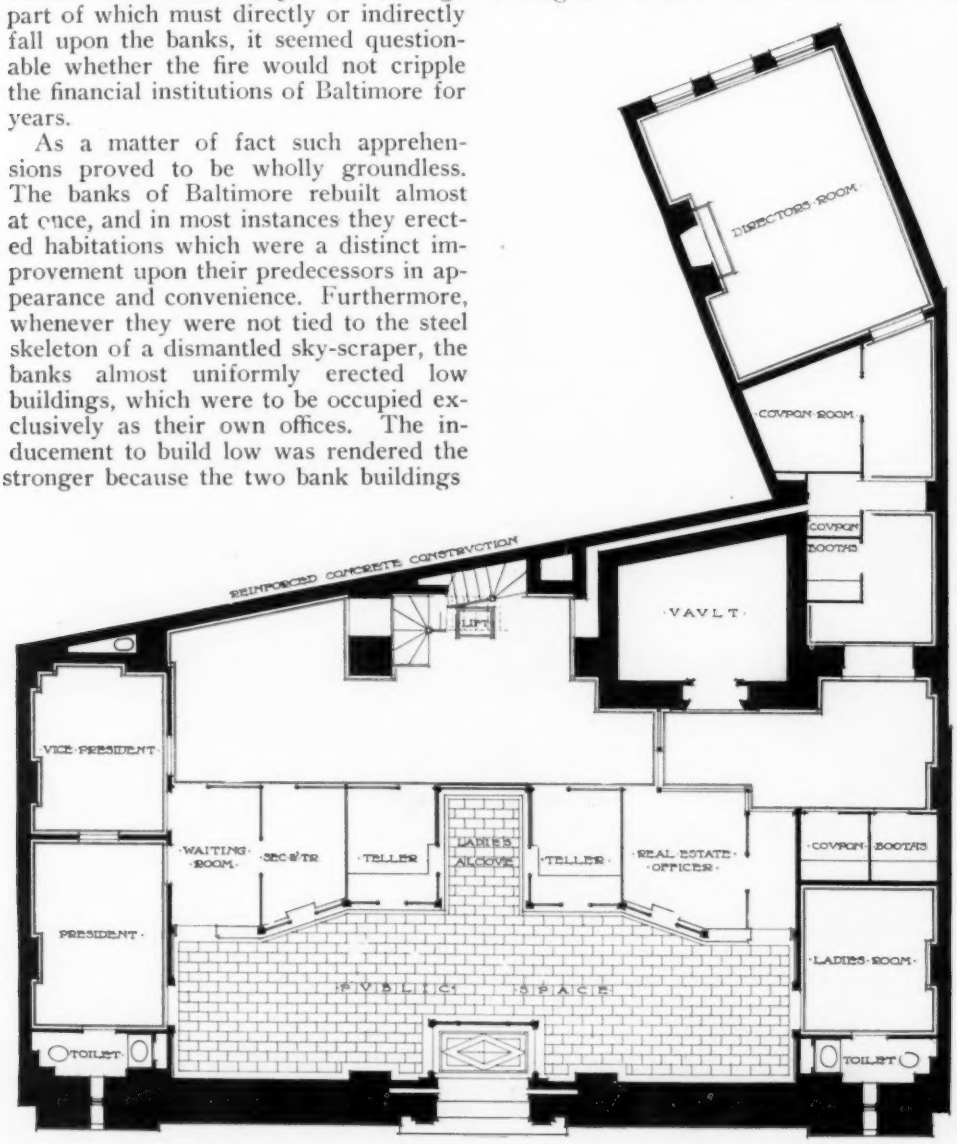
COLONIAL TRUST COMPANY.

Baltimore, Md. Ellicott & Emmart, Architects.

The destruction wrought by the great fire was so complete that it enormously increased the need of new buildings, while at the same time it made the banks more than ever inclined to make their new habitations comparatively low structures. The fire had not spared the financial district of Baltimore. This district centered around German St., and an area of a few blocks in that vicinity held the principal office buildings of the city and the majority of its financial institutions. The houses standing throughout this whole district were simply obliterated by the fire. The homes of no less than twenty-four of the leading banks and trust companies were so largely damaged as to need rebuilding. Only one bank in the burned district—the Safe Deposit & Trust Co.—escaped almost unscathed and opened its doors for business as soon as the fire was extinguished. Among the new structures wholly or partly destroyed were those of the National Union Bank and the International Trust Co. The home of the National Bank of Baltimore, a massive brownstone building, was almost a total loss—not even the walls being left intact. The building of the Merchants National

Bank, which was a sky-scraper, was practically wrecked, while all that was left of the tall structures of the Continental and the Union Trust Companies were the steel skeletons. Inasmuch as the loss from the fire not covered by insurance amounted to $25,000,000, a large part of which must directly or indirectly fall upon the banks, it seemed questionable whether the fire would not cripple the financial institutions of Baltimore for years.

As a matter of fact such apprehensions proved to be wholly groundless. The banks of Baltimore rebuilt almost at once, and in most instances they erected habitations which were a distinct improvement upon their predecessors in appearance and convenience. Furthermore, whenever they were not tied to the steel skeleton of a dismantled sky-scraper, the banks almost uniformly erected low buildings, which were to be occupied exclusively as their own offices. The inducement to build low was rendered the stronger because the two bank buildings in the burnt district which had been least damaged by the conflagration—those of the Safe Deposit & Trust Co. and of Brown & Sons—were both low structures, while two modern office buildings on corners opposite were so badly damaged that one had to be razed to

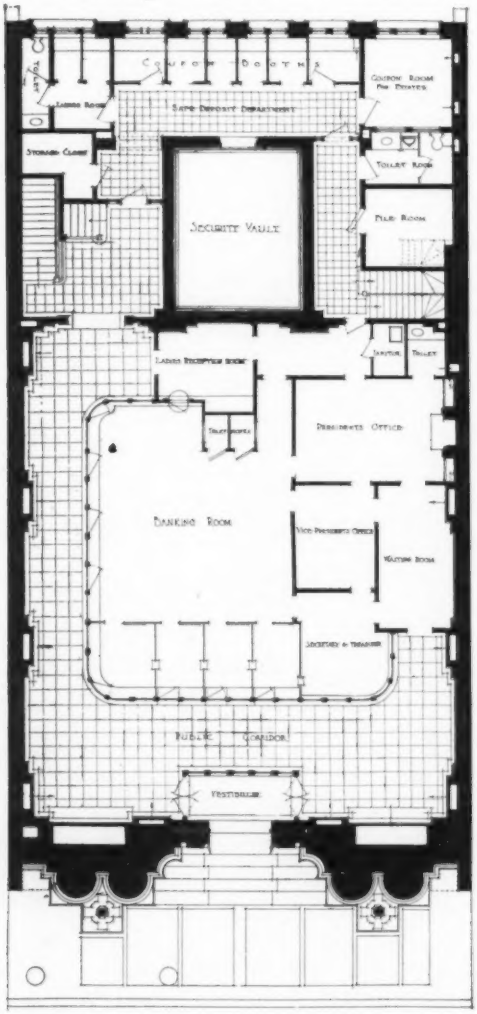


·MAIN·FLOOR·PLAN·

COLONIAL TRUST COMPANY.

Baltimore, Md. Ellicott & Emmart, Architects.

the ground and the other stripped to its steel skeleton. The experience of these banks convinced the bank-owners of Baltimore of the better protection afforded by low fireproof buildings, the consequence being that out of the twenty-four banking houses which have been

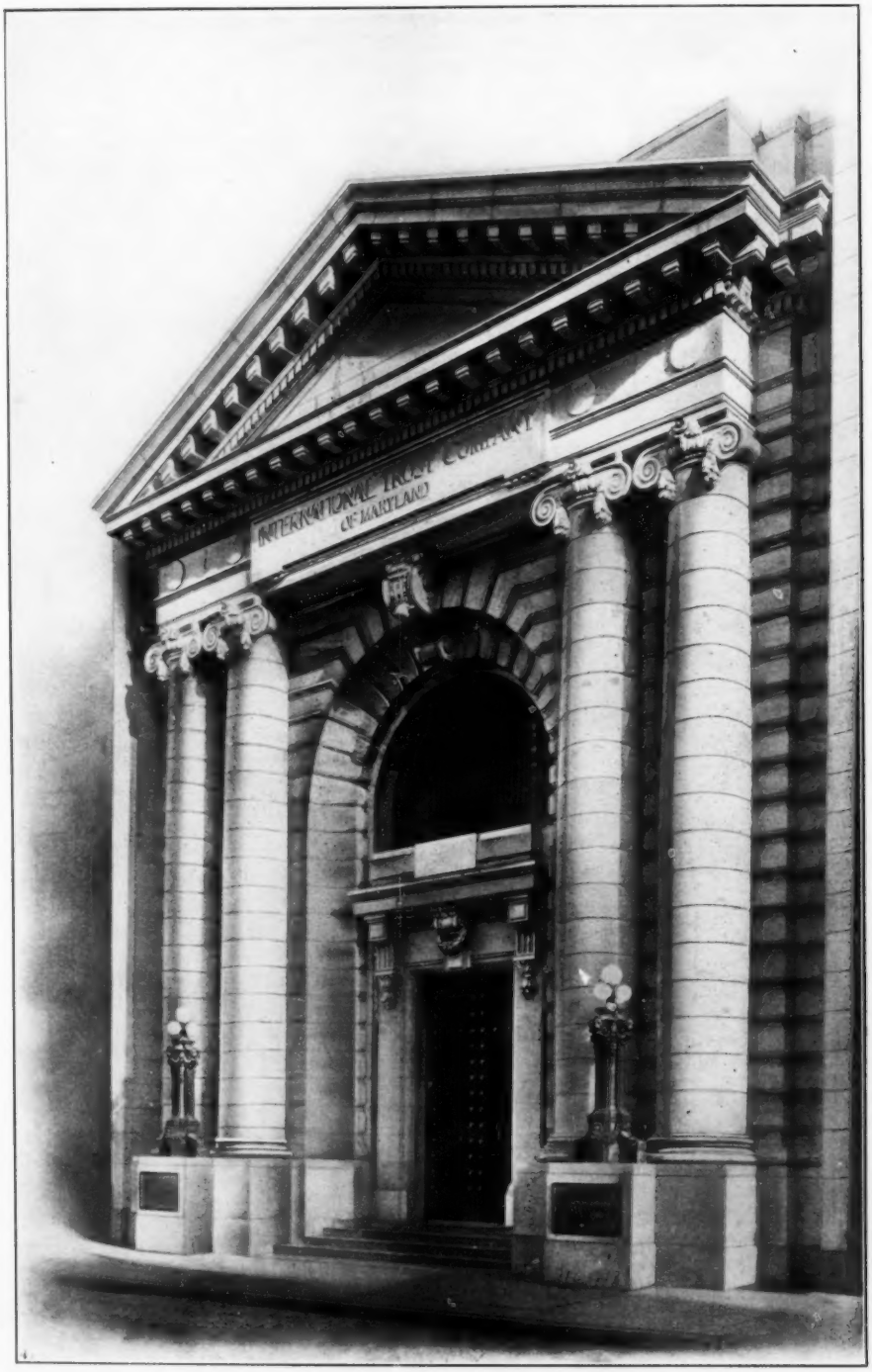


INTERNATIONAL TRUST COMPANY.
Baltimore, Md. Parker & Thomas, Architects.

erected in Baltimore during five years, only four rent any portion of their building, and no bank not already owning a sky-scraper has built one.

The bankers of Baltimore have discovered not only that low bank buildings are safer and architecturally more impressive, but they have also discovered that such buildings are more convenient. A bank does not need, like an insurance company, a large number of small offices, in which are transacted a vast mass of business detail. On the other hand it does need one large impressive and well-lighted apartment, in which the public business of the bank with its customers can be transacted; and it needs in addition a number of smaller rooms to be used as the private offices of its chief executive officials and as directors' rooms. These practical requirements are adapted peculiarly to a low building erected on an ample lot. It is difficult to light a spacious counting-room sufficiently without skylights, and it is not easy to plan a sky-scraper economically so that skylights are possible. It can be done by converting the well of the court into a spacious counting-room; but such an arrangement is economical only when the sky-scraper is erected on an extended site, and the interior court is consequently exceedingly large. An enterprise of such proportions which might be possible and profitable for the First National Bank in a city like Chicago would not be possible for the banks of a city like Baltimore. Consequently they had an additional inducement to erect a low building, the largest apartment in which could receive an abundant supply of good light from above. Such a room diminished the cost to the bank of artificial light, it saved the eyes of the clerks, and it was capable of dignified and effective architectural treatment.

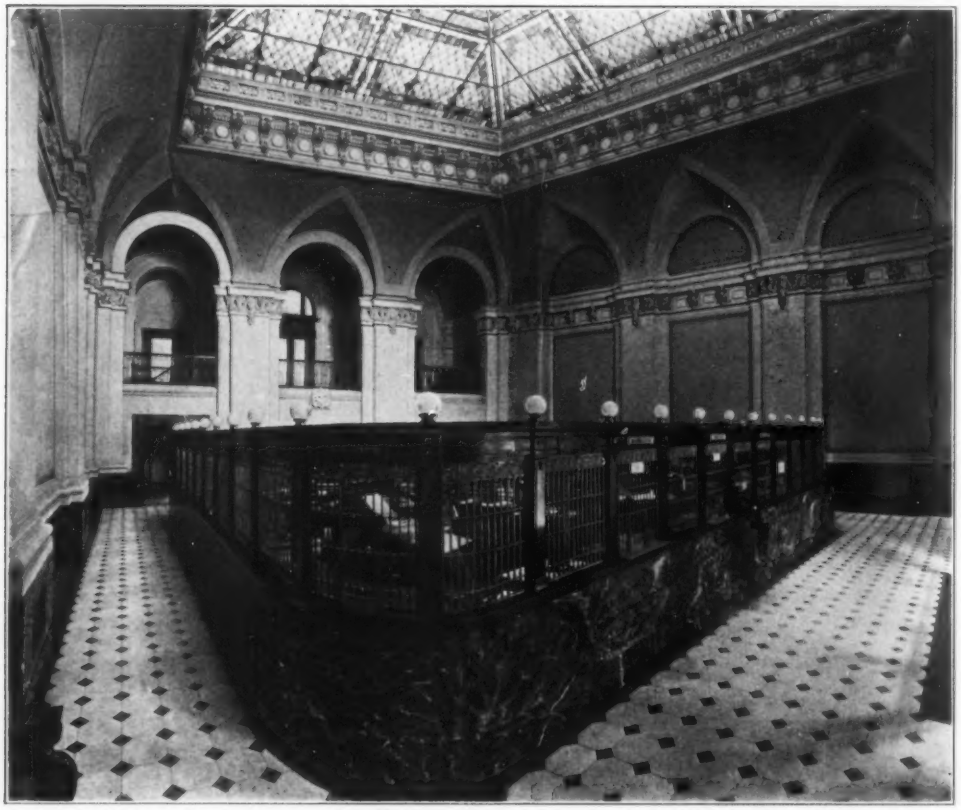
The needs of the business of a bank consequently suggest the following plan, which may be regarded as typical for a bank building not more than one or two stories high. There must be a spacious entrance leading through a wide and handsome lobby in a very large room, around which the counters will be arranged in the most convenient manner. The ceiling of this room will run up to the roof of the building, and as many skylights as are necessary will give it the best possible means of illumination and ventilation. The private rooms needed for the transaction of the bank's busi-



INTERNATIONAL TRUST COMPANY.

Baltimore, Md. Parker & Thomas, Architects.

ness, such as the directors' room, the offices of the president and secretary, and the several special rooms needed for the accommodation of individual customers —all these smaller apartments can be situated on the outer rim of the building and can receive their light from ordinary windows. If there are many such rooms it is usually necessary to distribute them through two floors, and to make the second floor appear from the large counting-room as a gallery. A plan of this kind is convenient, economical, and permits of effective architectural treatment. But, of course, in fitting such a plan on a particular site many modifications are usually necessary. This much will depend upon the shape of the lot and on the number of streets upon which it fronts. The ideal site for a bank would contain frontages on three streets, so that the building would have unimpeded side lights from three directions, but as that is usually impossible the most practicable alternative would usually be a site so large that the bank could itself reserve enough room for spacious interior courts. Such an arrangement is costly, but in certain instances, in which the land is not too expensive, it pays, because of the extremely convenient interior arrangements which are thereby made possible, and because also of the greater impressiveness of the exterior effect.

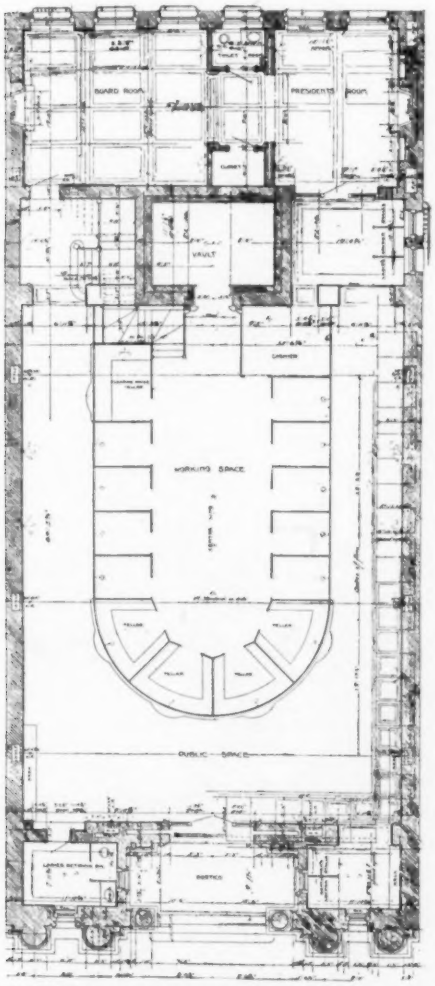


INTERNATIONAL TRUST COMPANY.

Baltimore, Md. Parker & Thomas, Architects.

The only Baltimore bank building in which any such arrangement has been possible is that of the Savings Bank of Baltimore, of which the architects are Messrs. Parker & Thomas. In this in-

stance the architects have been enabled to design practically a detached building, in the form of an Ionic temple, the interior of which is so well lighted from above that the side window lights could be obscured by projection of the colonnade. There may be some objection on



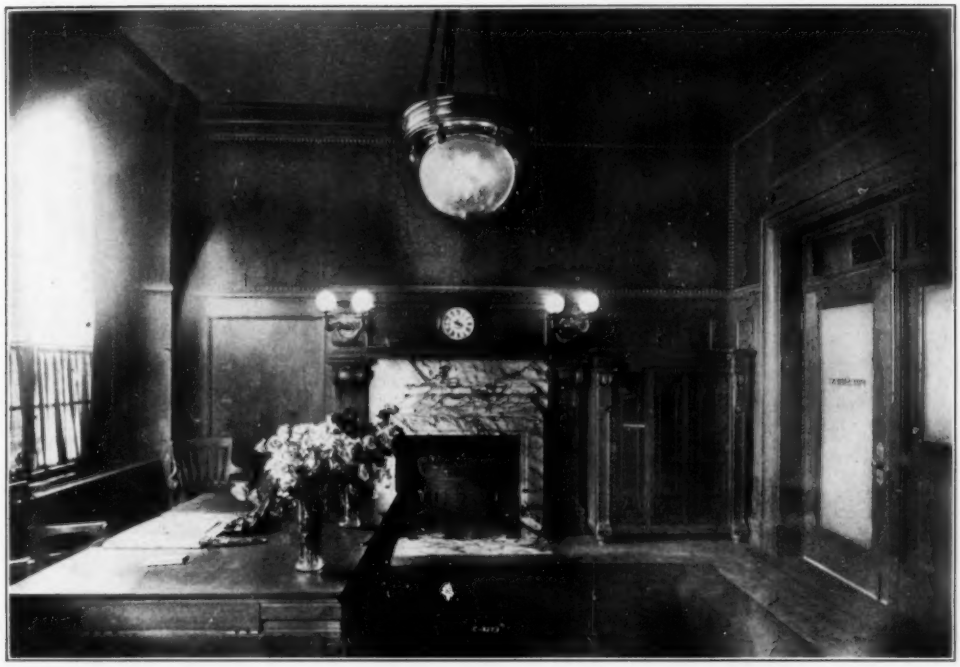
NATIONAL UNION BANK OF MARYLAND.
Baldwin & Pennington, Architects.
Baltimore, Md.

the score of propriety to the use of an Ionic temple even for such an admirable purpose as that of a savings bank, but there can be no doubt of the popular effectiveness of such a design. There is nothing comparable to a huge colonnade for the impression it makes on the popular mind of architectural dignity, and the Savings Bank of Baltimore, which is one of the oldest and largest institutions of the kind in the country, had a peculiarly strong and effective motive for wishing to make a powerful impression on the public. With its 20,000 depositors and its assets of over $28,000,000, its directors naturally desired that its building should express not only security and strength, but institutional dignity; and the design of the architects with its massive marble columns and its huge scale is precisely adapted to inspire the people of Baltimore with awe and respect.

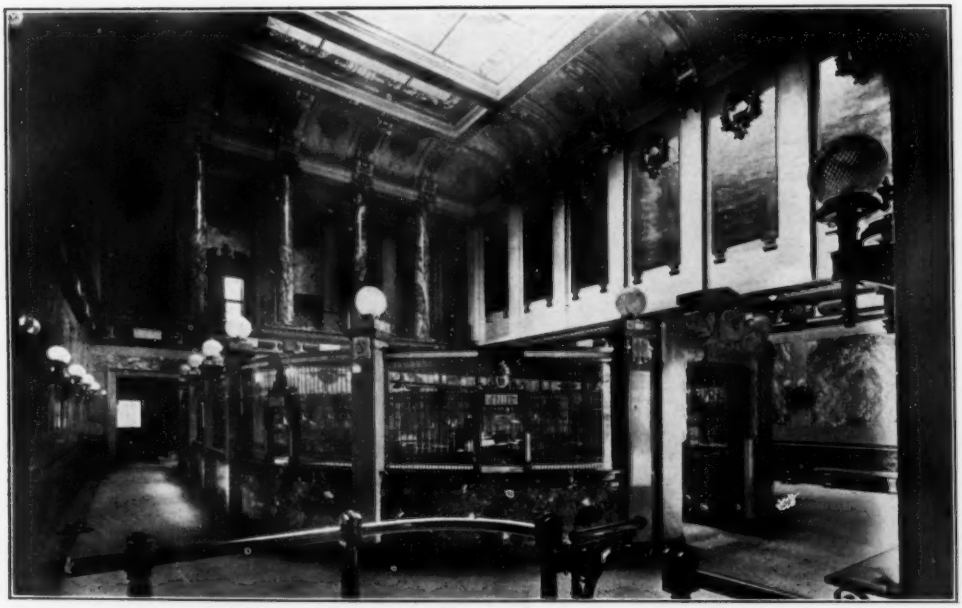
The best that a bank can usually do to obtain a maximum of street frontage is to situate its buildings on a corner. The majority of Baltimore banks are so situated, and the banks which are located on corners are usually designed in order to obtain, like other office buildings, a maximum of window space. Thus in the cases of the buildings of Brown & Sons, the National Mechanics' Bank, the National Bank of Baltimore, the German Bank, and the National Exchange Bank, all of which are situated on corners, the wall-space is not only pierced but eaten up by huge windows—windows which in some instances are so large, compared to the size of the site, as to make skylights unnecessary. Among the buildings situated on corners, those of the National Bank of Baltimore and the National Mechanics Bank are most successful. The architects of the first of these buildings have managed, in spite of the large arched windows on the longer façade, to retain enough wall-space to give a certain substantial strength to the design, and the two frontages, barring certain clumsiness of detail, are examples of dignified and appropriate street architecture. The two frontages of the National Mechanics' Bank are, however, better managed, both from the point of view of appearance and of convenience. The architect has used a colossal order engaged on the wall to frame the windows, and in this way he has obtained a maximum of light, while at the same time keeping his architectural design simple, consistent and

NATIONAL UNION BANK OF MARYLAND.

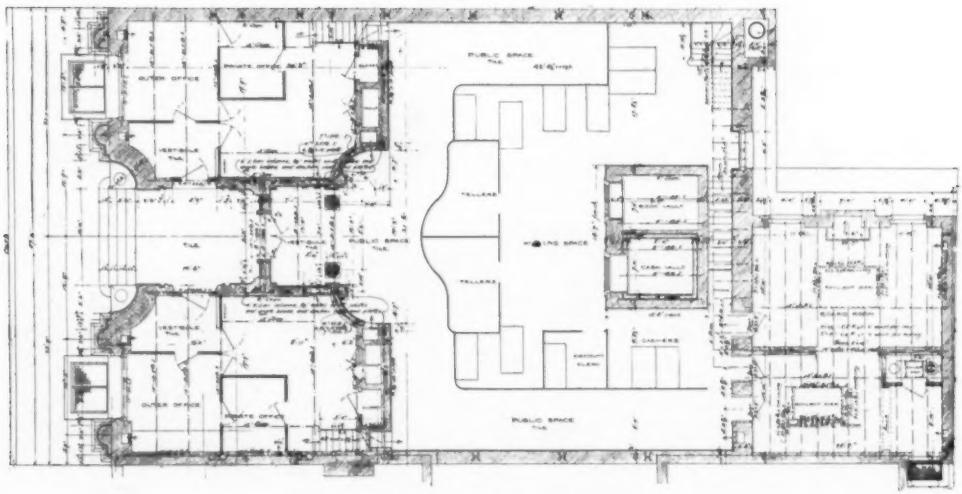
Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL UNION BANK OF MARYLAND—PRESIDENT'S ROOM.
Baltimore, Md. Baldwin & Pennington, Architects.

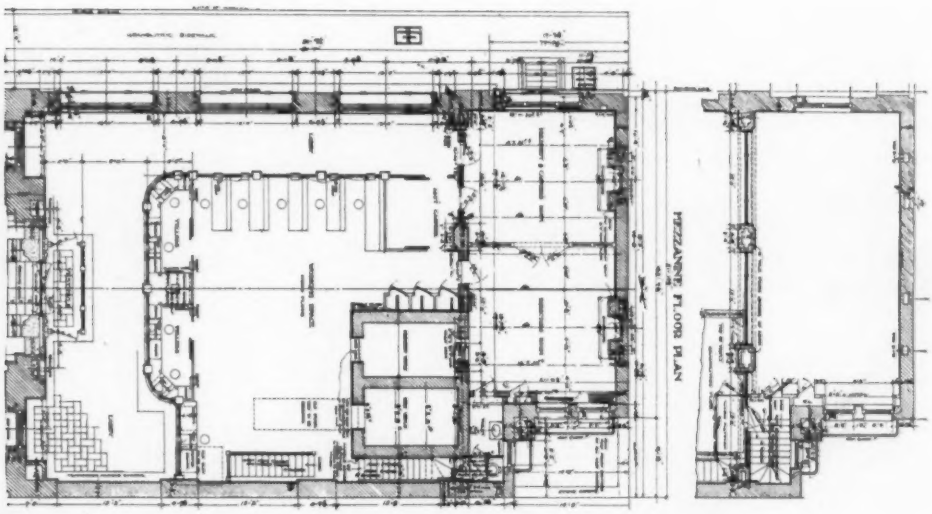


NATIONAL UNION BANK OF MARYLAND—LADIES' DEPARTMENT.
Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL BANK OF COMMERCE.

Baltimore, Md. Baldwin & Pennington, Architects.

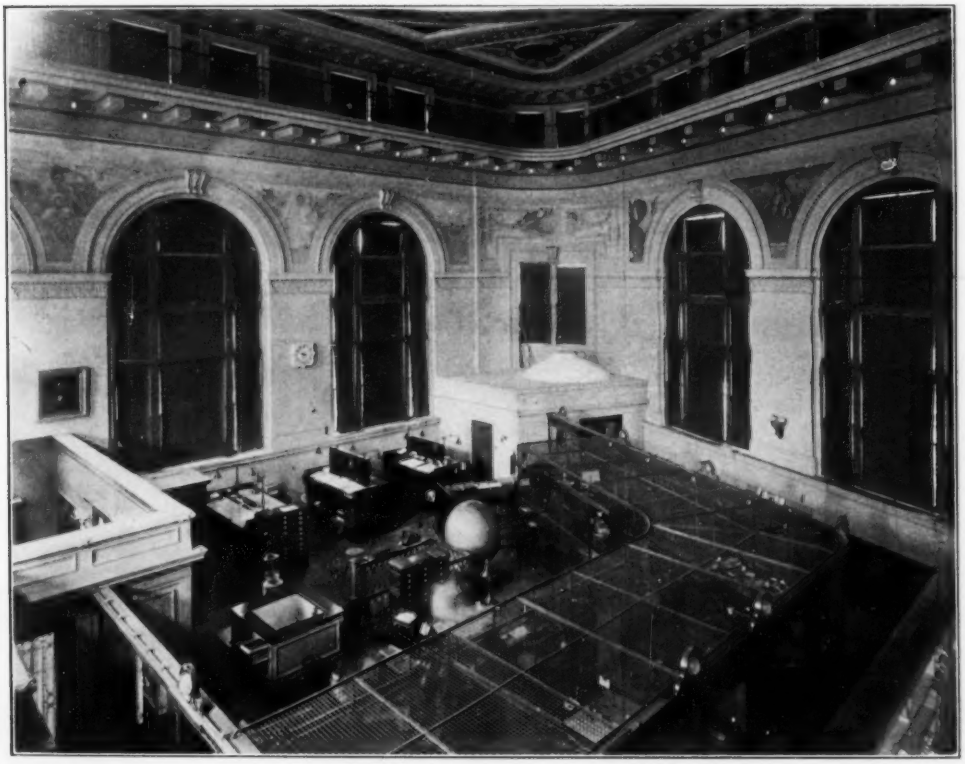


FARMERS' AND MERCHANTS' NATIONAL BANK.

Baltimore, Md. Baldwin & Pennington, Architects.

strong. The idea is similar to that which obtains in the design of the Knickerbocker Trust Company in New York; but there are radical differences in detail between the New York and the Baltimore bulidings. The architects of the National Mechanics' Bank, Taylor & Knowles, are assuredly to be congratulated on their work.

The buildings of the National Union Bank and the International Trust Company are peculiar, in that they have frontages on only one street, and this limitation inevitably determined the character of the design. It has become universal to treat the façade of a bank building with only one frontage as a huge arch framed in by one or two pair of engaged columns and an entablature, and the façades of these two bank buildings are no exception to the rule. The problem being similar in each case, it is interesting to place the buildings side by side, and to observe the differences of treatment. The architect of the National Union Bank has had a somewhat wider lot; and he has used it to obtain more light for the rooms giving on the street. His columns are placed far apart, and in the intervening space two windows have been inserted on the first floor and two bull's-eyes on the second. But the light given by these apertures cannot amount to very much, and their intrusion has decidedly weakened the design. The whole effect of the frontage is as a consequence distinctly feeble, and its feebleness is rather intensified than relieved by the liberality with which decorative detail has been applied. The façade of the International Trust Co. is, on the other hand, far more compact and

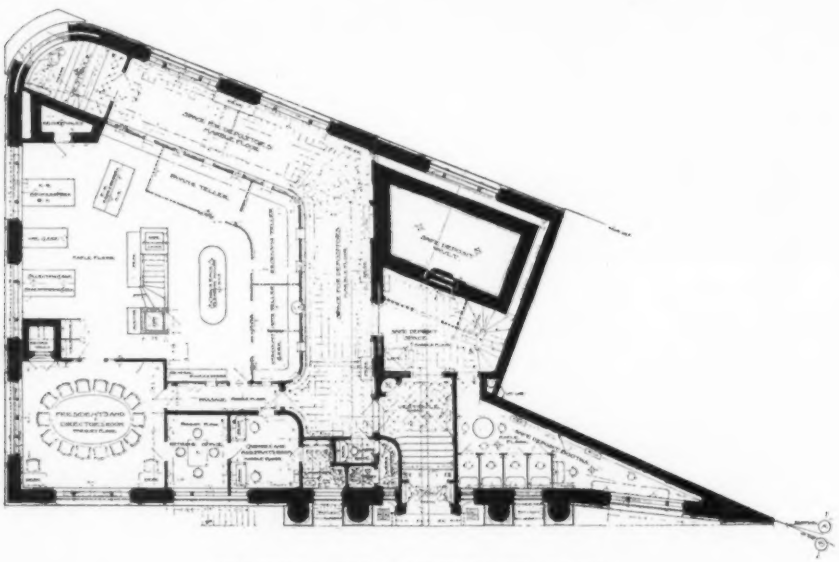


NATIONAL EXCHANGE BANK.

Baltimore, Md. Taylor & Knowles, Architects.

NATIONAL EXCHANGE BANK.

Baltimore, Md. Taylor & Knowles, Architects.

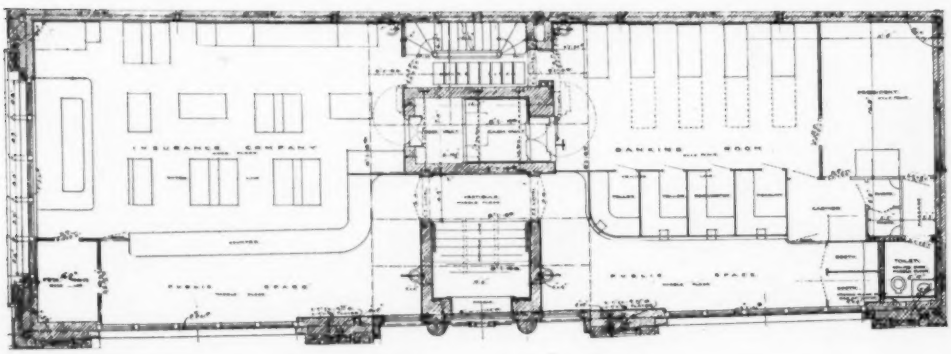


NATIONAL EXCHANGE BANK—PLAN.

Baltimore, Md. Taylor & Knowles, Architects.

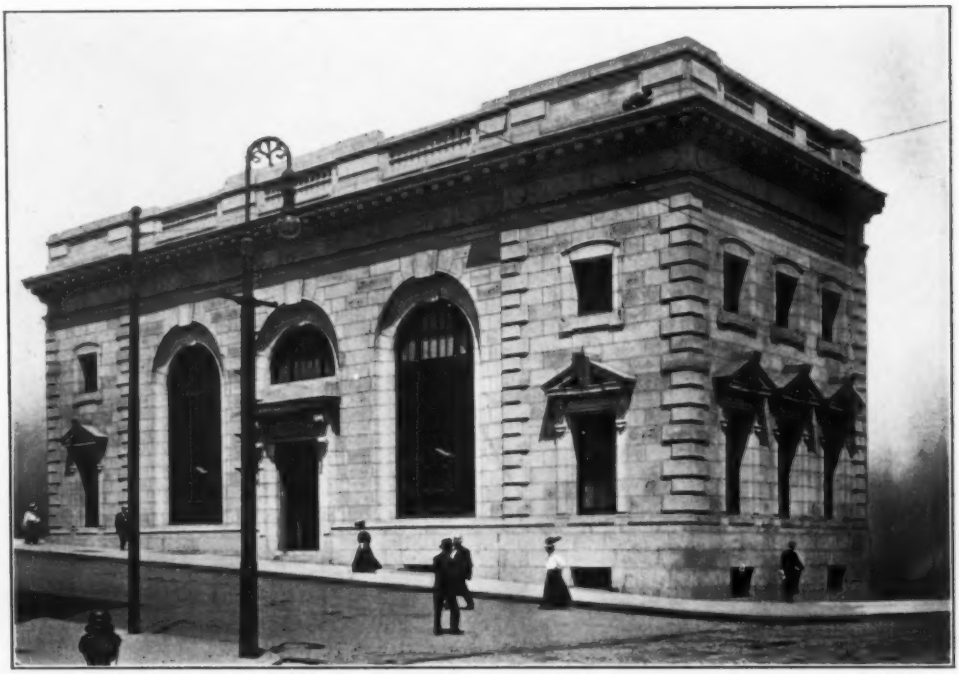
GERMAN BANK OF BALTIMORE.

Baltimore, Md. Baldwin & Pennington, Architects.



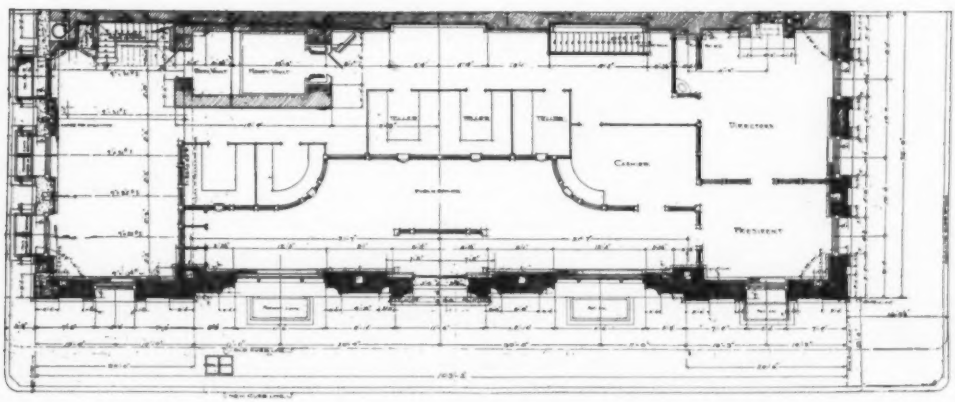
GERMAN BANK OF BALTIMORE—PLAN.

Baltimore, Md. Baldwin & Pennington, Architects.



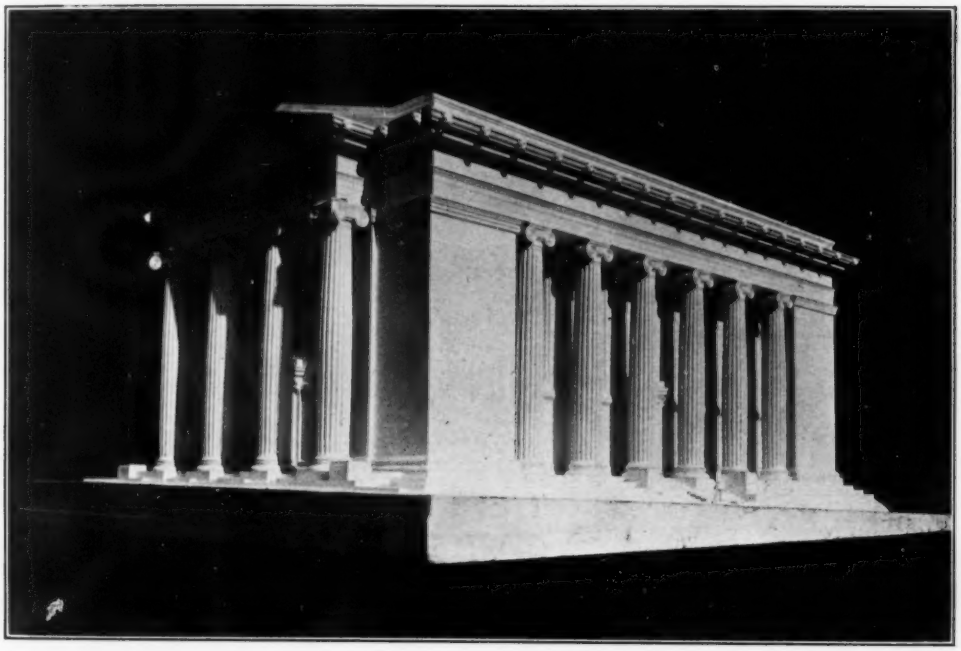
NATIONAL BANK OF BALTIMORE.

Baltimore, Md. Baldwin & Pennington, Architects.



NATIONAL BANK OF BALTIMORE—PLAN.

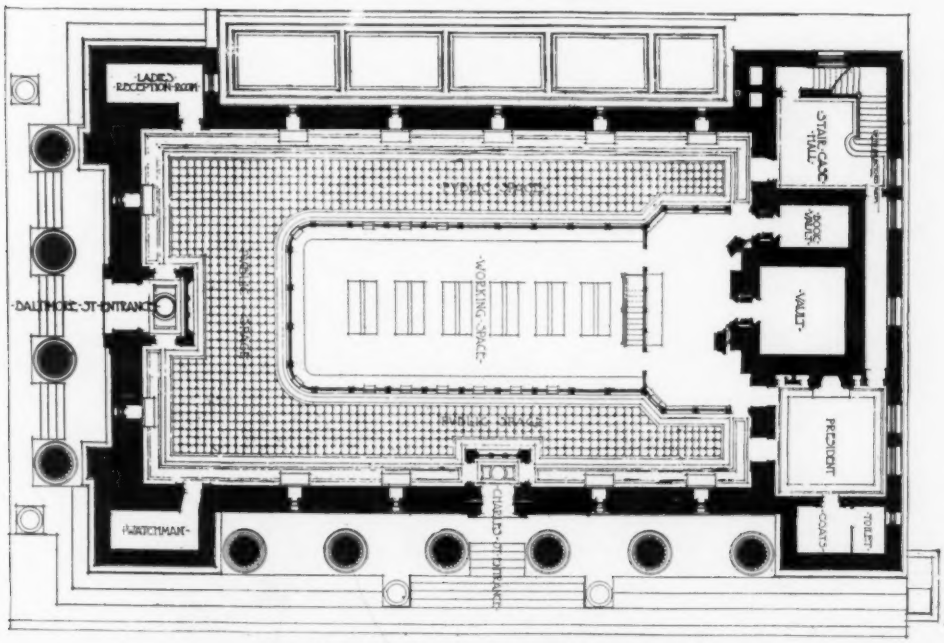
Baltimore, Md. Baldwin & Pennington, Architects.



THE SAVINGS BANK OF BALTIMORE.

Baltimore, Md. Parker & Thomas, Architects.

(From the Architects' Model.)

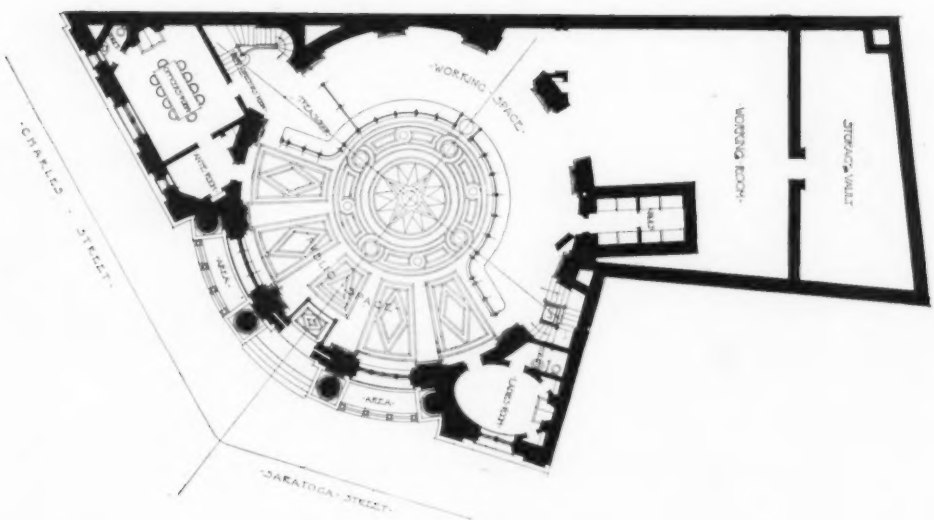


THE SAVINGS BANK OF BALTIMORE—PLAN.

Baltimore, Md. Parker & Thomas, Architects.

METROPOLITAN SAVINGS BANK.

Baltimore, Md. Parker & Thomas, Architects.



METROPOLITAN SAVINGS BANK—PLAN.

Baltimore, Md. Parker & Thomas, Architects.

far more emphatic. The decorative members are centered around a good strong arch with a deep reveal, and the effect is much more positive than it is in the case of the façade of the National Union Bank. Whatever may be thought of the desirability of sacrificing as much light as is necessarily sacrified by such frontages, the design of the façade of the International Trust Co. makes much more effective use of the architectural opportunities offered by the problem.

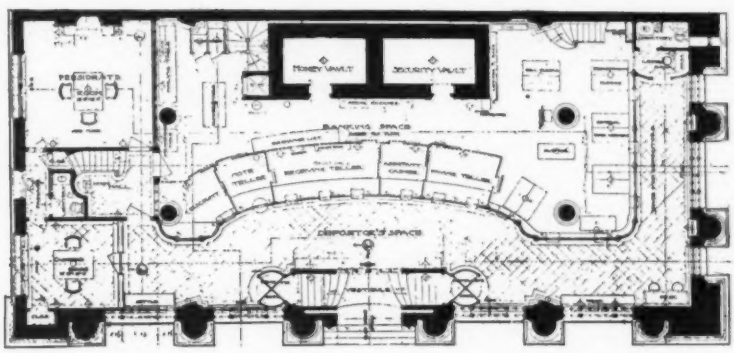
Two other of these Baltimore bank buildings demand special comment, because of certain peculiarities in their appearance. One of these is the habitation of Alexander Brown & Sons, which was erected before the fire and passed through it without being badly injured. In this instance the architect has departed from the usual practice of designing an architecturally pretentious building and has been content with the comparative modesty of two colonial façades,

NATIONAL MECHANICS' BANK.

Baltimore, Md. Taylor & Knowles, Architects.

NATIONAL MECHANICS' BANK.

Baltimore, Md. Taylor & Knowles, Architects.



NATIONAL MECHANICS' BANK—PLAN.

Baltimore, Md. Taylor & Knowles, Architects.

and there was a certain propriety in this selection of the style, both because of the many colonial houses in Baltimore and because the bank which inhabited the building was owned by a private firm. It is natural that a firm of private bankers should refrain from pretending to be too much of an institution, and that they should prefer for their official domicile a building whose appearance was by way of being domestic. The idea of a colonial habitation for a private banking firm of

such long standing as Messrs. Brown & Sons was consequently excellent, and it is a pity that it was not carried out in the spirit of simplicity and discretion characteristic of colonial architecture at its best. The window openings are ineffectively distributed, and the chief decorative members of the design, viz.: the pilasters, are feebly executed. On the other hand the effect on the whole is so good that the critic may well wonder whether it is worth while for a bank which at bottom is a purely business enterprise, to spend very much money in trying to look like an institution.

NATIONAL MECHANICS' BANK—CEILING.

Baltimore, Md. Taylor & Knowles, Architects.

The other exception to the usual rule is the building of the Provident Savings Bank. This building, it may be explained, is the central office of a bank which has many branch offices in Baltimore and its vicinity. It is not the place to which the customers of the bank are obliged to come in order to transact their business; and it did not require to be very large or very ornate. On the other hand, inasmuch as it was the central repository for a number of branch offices, it was desirable that it should look secure, and the architects have certainly succeeded in imparting such an effect to the structure. The building looks like what it is, and what the depositors in the bank want it to be, viz.: a strong box. The huge ribs of masonry seem to be holding the box tightly together, and one gets the impression of a stability and strength which will endure forever, and which is divorced from anything superfluous and wasteful. One gets the impression, that is, of a business-like and economical stability, which is to be preferred to any other form of endurance.

THE WEST STREET BUILDING—VIEW FROM THE FOOT OF CORTLANDT ST.
West Street, New York City. Cass Gilbert, Architect.
(Photo by J. H. Symmons).

The West Street Building

New York City

We are all the time saying to one another, we people who believe that architecture is not a dead art, at least not an irredeemably dead art, that the skyscraper is "all right" as an architectural problem, only not as an architectural performance. The commercial skyscraper we know and disrespect. And this means not the utilitarian skyscraper. For the skyscraper is a foredoomed failure if it be designed on any other than utilitarian grounds. The moment the designer allows himself to take money out of his owner's pocket for his own glory, by stopping up needful lights, for example, with architectural features, by widening passages at the expense of rentable space, by making any sacrifice whatever of the baldly practical requirements, that moment he injures his work artistically and compromises or degrades himself, strictly as an artist. Of all buildings, the "impractical" skyscraper is the least excusable. For the whole reason of the erection is, as Paul Bourget well put it about the skyscrapers of Chicago, to utilize to the very utmost in every story of the climbing pile, "the bit of ground at the base." The architect who fails to do that, whatever else you may be moved to say about his work, fails utterly and fails irredeemably. He shows himself not only not an artist but not even an honest man. For what else can you say of a man who puts his hand into the pocket of the employer who trusts him to make the best investment, and takes therefrom money wherewith to build a monument to his own glory not only at the expense of the trustful owner, but to his loss and damage?

Surely there is no room for honest misapprehension on this score. It is quite true that the owner is, as a rule, very fairly qualified to take care of himself. To paraphrase Lincoln, you can fool one owner one time, but you cannot fool one owner twice or two owners once. As it was expressed by a Chicago architect who was asked what would happen to the Chicago architect who wasted room in office buildings as many a New York architect has done, "Why, the word would be passed and he would never have another to do." What one means by the commercial method of designing skyscrapers is that the commercial architect of commercial buildings saves himself the expense of thinking, and also incidentally office expenses, by transferring from his portfolios to his skyscraper some irrelevancy with which the skyscraper has nothing to do. The owner of a skyscraper is, as a rule, as willing to pay for beauty as for use. At least he is willing and anxious to have his building admired. It is true that he is not so quick to see that features which the commercial architect recommends to him as beautifications are really, in Ruskin's phrase, "monstrifications." It is the architect who has strictly to exclude historical irrelevancies from his mind when he is designing this aspiring novelty for which there is no historical precedent. "Hoc age," "Do this," must be particularly the motto of the architect of a skyscraper. When a designer "does this," with strict reference to itself, and, given that he is an artist, makes his skyscraper out of its own elements, he is sure of popular applause as well as of the approbation of the judicious.

It is not frequent for a designer of skyscrapers to attain this double success. But Mr. Cass Gilbert, having attained it once in the Broadway Chambers, has scored again with the West Street Building, where he had a larger opportunity. The former, with its rigid adherence to the conditions, met with such appreciation from the logical French mind, the Paris Exposition of 1900, that it is related that a diploma of honor, addressed to "M. Broadway Chambers" wandered about the postal conduits of the country until it was delivered at its intended destination months after the close of the Exposition. The columnar treatment which

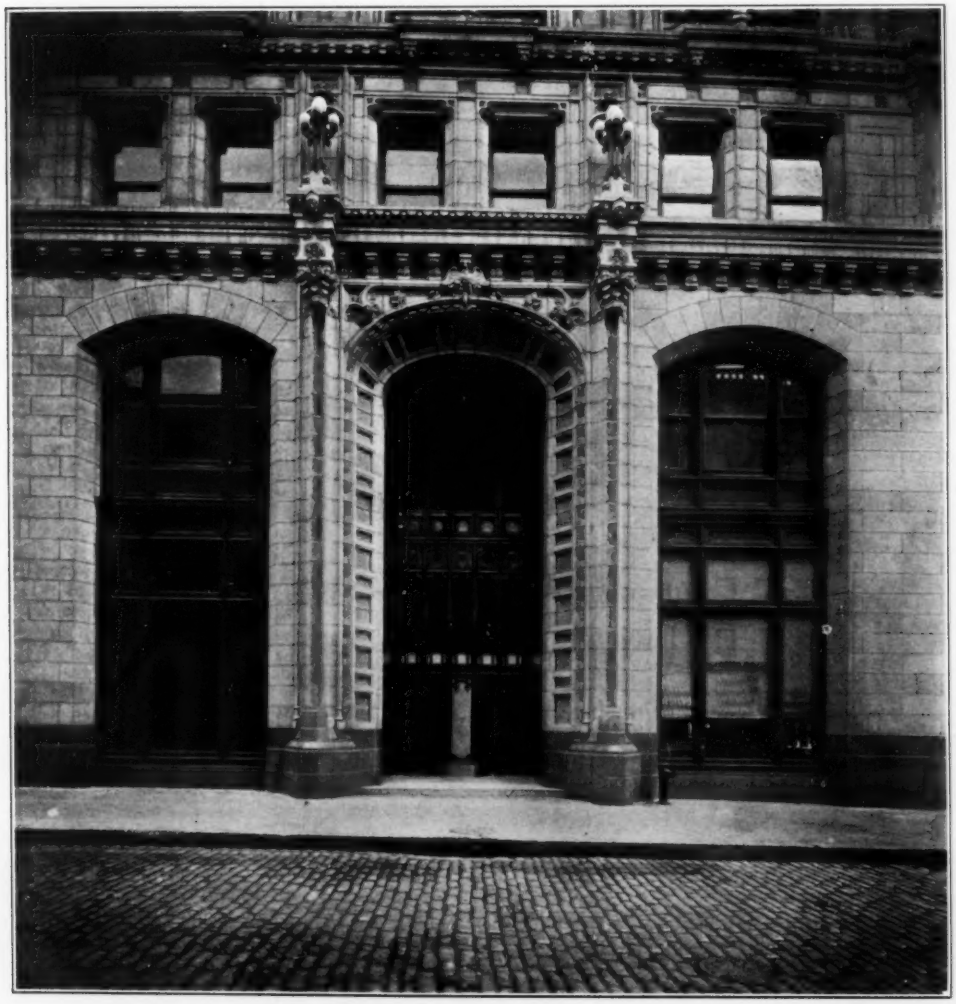
THE WEST STREET BUILDING—REAR VIEW.

West Street, New York City. Cass Gilbert, Architect.

(Photo by J. H. Symmons).

has imposed itself upon most architects of the skyscraper, had not, up to 1900, been more logically and more artistically expounded than in the Broadway Chambers, with its rusticated stone basement, its rough brick shaft, and its capital of

the eye of its stability, tends to secure that stability in fact, and corrects the optical illusion by which the upper stages of a mere parallelopiped seem to overhang the lower, is an artistic nuance difficult, no doubt, to be secured in effect in



THE WEST STREET BUILDING—CEDAR ST. ENTRANCE.
West Street, New York City. Cass Gilbert, Architect.
(Photo by J. H. Symmons).

vari-colored terra cotta. It would be rash to say that it has been more successfully expounded since.

All the same, a mere parallelopiped cannot be regarded as an artistic form. The mere "batter" that at once assures the steel frame construction. It is the chief among the many merits of the older part of the "Monadnock" in Chicago that the propylar effect of a batter is there effectively secured, and that in a flat-roofed building. But the instructed eye

demands that the three features of the tower which is the skyscraper shall be more effectively distinguished than they can be by mere variation of material or

THE WEST STREET BUILDING—WEST ST. ENTRANCE LOOKING TOWARDS THE ELEVATOR ENCLOSURE.

West Street, New York City. (Photo by J. H. Symmons). Cass Gilbert, Architect.

even of color within the strict parallelopipedal enclosing lines. The Aristotelian requirement in every work of art of a beginning, a middle and an end, is a requirement, when applied to a building, that the three parts should be more strongly emphasized and distinguished than can be managed within the periphery of four rectangular faces, or even within the periphery of a cylinder.

In the fact that its design allows for such a distinction is the West Street

Building an advance upon the Broadway Chambers. Sometimes, in a building of which the conditions seem to exclude a visible and crowning roof, the emphasis of the capital may be managed by an actual projection and overhang beyond the substructure, as notably, and very successfully in the tower, and especially in the crowning cornice of the tower of the Times Building in New York. But the result is more fortunate when the conditions, as in the West Street Building, admit of a visible roof as a crowning appendage to the upper stage. The appendage need by no means compromise the strict utilitarianism of the building. As. Mr. Louis Sullivan has pointed out in words, and as he and other architects have successfully exemplified in actual building, the top of an

THE WEST STREET BUILDING—THE ENTRANCE CORRIDOR, LOOKING TOWARDS ALBANY ST.

West Street, New York City. (Photo by J. H. Symmons). Cass Gilbert, Architect.

office building of many stories not only admits but invites subordinate and reduced apartments belonging to the administration of the building itself, which may properly amount to less than the area of one of the floors built and arranged for the tenancy, which is the primary reason of being of the whole Titanic erection. Janitors' quarters, for example, and the elevator heads and the tanks which, in commercial buildings commercially designed, are so often allowed simply to project above the roof line in masses unsightly when one is far enough up or far enough away to see them at all, unsightly because formless, chaotic and undesigned. Just as the servants' quarters in a huge hotel may properly be subordinated in total area to the guests' rooms, and as their subordinacy be emphasized, or even as the similar "offices" in a private mansion of pretension may be subordinate in the size of each and the aggregate area of all, to the guests' rooms in the one case, or the living rooms in the other, and still constitute, architecturally, the crowning feature of the building, so may the skyscraper's dependencies be emphatically treated.

It is in this treatment of the crown that the admirableness of Mr. Gilbert's latest skyscraper essentially consists. The base leaves the discriminating admirer distinctly cold. Of the shaft, such an admirer says of the architect, as Tennyson's "Northern Farmer" of the parson,

I thowt a said whot a owt to 'a said,

though to be sure this is immensely higher praise of a promiscuous skyscraper than of a promiscuous parochial sermon. But the upper section is distinctly "the thing," whether in a nearer or a more distant view, the thing which makes the beholder glad and grateful.

The triple division is very well managed, and the proportions of it agreeable —a base of three stories, or four counting in the transitional story with the base to which it belongs by its material and its treatment; a shaft of twelve, another transitional story, which may be counted as an "echinus" or rather as a "necking"; a capital of three stories included under the segmental arches, which form five bays on the shorter front and seven on the longer; and above, the rich cornice story and the parapet story, with the additional but subordinate story included in the inward-sloping roof. Such is the simple and obvious "lay out." But like most architectural successes of the same kind, note well, it is obvious only after it has been done.

The base is the least successfully and most conventionally treated member of the composition. The conventionality includes the common convention of an assumption that it really carries the superstructure as in a building of masonry. It is hard to blame an architect for doing what everybody does, even though one is prepared to maintain that he is following a multitude to do evil. And, in truth, it is difficult to make an effective triple division, with the columnar proportions to which the eye is so accustomed that it may be said to demand them, without making such an assumption. Only the lowest story of all is so separate in function that it can logically be treated separately. The purpose of making the base correspond with the capital is responsible, of course, in this case for the fiction that its four stories in granite carry the superincumbent edifice, insomuch that the reeding of the shafts that enclose and emphasize the steel posts in the central division is here omitted, instead of being continued, as in fact of course the steel posts themselves are continued to and below the ground. The assumption is that the skeleton frame superstructure in terra cotta rests upon and rises from a solid wall. One cannot accept a design in which that assumption has to be made as a complete solution of the problem, no matter how common or even universal is the assumption. Moreover, in a general view of the actual building, though not so strongly as in the photograph, the tall undivided openings of the basement have a look of weakness, from the lack of division and the lightness of the stress that is laid upon the connecting horizontal members within the opening which, if they were emphasized and brought forward, would enhance the apparent strength of the construction, and would also make more

plausible the assumption that the base we see really supports the superstructure. Note, in the photographs of the entrances, how the modelling of the arches and the treatment of the interstitial filling give this bay an aspect of strength and security which is lacking to the plain segmental bays alongside.

But, above the cornice of the fourth story, unfavorable criticism is reduced very nearly to silence. The reeding of the twelve-story shafts emphasizes instead of concealing the fact that they are mere envelopes and wrappages for a framed building. It suffices to give projection and relief without sufficing to darken the openings between, or to dissemble the fact that the twelve stories are composed of so many tiers of homogeneous units. The plainness of the piers at the angles increases in comparison their breadth and importance as enclosing features. For the effect of this reeding, look at the photograph of the rear from which it is omitted, and which, as to the shaft is "unaccommodated" steel frame, not architecturally treated at all. This elevation, though it is evidently expected to be hidden by buildings that will come to adjoin it, is very fairly presentable while it is exposed, in spite of the unfortunate and enforced asymmetry of the wings that flank the light-shaft. But compare it with the fronts that are expected to remain visible from top to bottom and see the effect of the treatment which has been applied to them. It is at once practical, logical and artistic.

But of course the crowning member, as we have said, is "the thing." Highly effective close at hand where only the perpendicular fronts can be seen, how much more effective it is from afar where the inward slope of the then visible roof admits of the introduction of the cupolated pinnacles. The detail is everywhere excellent in design and in scale. But this crowning member is particularly lucky. Whoso gets, with a shock of pleasure, his first glimpse of this roof from where the lower building is invisible, say from across Trinity churchyard, or from up or down the river, must feel it to be an inspiration. If of a critical turn of mind he must, as he sees the rich dormers and the rich pinnacles relieved against roof or sky, feel the architect to have been particularly well inspired in choosing a medieval prototype for his performance. Even the asymmetry of the eastern front as he sees it "lifting its far height above the purple crowd of humbler roofs," intolerable as it would have threatened to be in a tiara designed on classic lines, ceases to afflict him when it comes to remind him of the asymmetry of the counterparting and unequal spires of Amiens or of Chartres, with the effect of which the effect of this monumental crown of a modern monument of utility is not unworthy to be compared. It is only in Gothic that one attains, to recur to our Ruskin, "those misty masses of multitudinous pinnacle and diademed tower" which can glorify the summit even of a practical and prosaic New York skyscraper.

CHURCH S. MACLOU, ROUEN—FRONT VIEW.

Discovery of an Original Church Model by a Gothic Architect

I had been gathering material in the British Museum for an article on Mediæval Architects, their life and methods, to appear in the "Architectural Record," and had been pleased to come across considerable proof that models of different parts and even of the whole of a church were prepared by Gothic architects and submitted as projects for approval to the committee in charge, previous to construction.

Of course such work was costly, and took time, so that it was rarely done, as compared with the common use of drawings. I do not believe it was generally known among modern scholars that such things were ever made at that time. Certainly, no such models were known to exist. All the keener, though all the slenderer, was my hope of discovering one; and as I was then on my way to Paris, my good genius made me stop at Rouen, because it seemed as if there, if anywhere in France, a model might possibly exist. The old-fashioned town, with its Gothic masterpieces, Saint Ouen and Saint Maclou, the less harmonious but even more interesting cathedral, the Town Hall and the Tour de l'Horloge, the Palace of Jacques Coeur and other private houses, held great promises of old things preserved.

I went at once to M. de Beaurepaire, the State archivist, who not only has the reputation of being the most learned archivist in France, but had just completed an exhaustive study on the Gothic architects of Rouen for the review "Ami des Monuments Rouennais." He dashed my hopes, adding that if such a thing as an original Gothic model existed in Rouen he would certainly know of it.

From this interview I proceeded in chastened mood to the little archæological museum at the top of the hill, like any tourist. In one of its long galleries, where the light is subdued by filtering through XVIth century stained glass windows, I backed unexpectedly into a show case, turned around, and *my model stared me in the face*, standing fully three feet high. Best of all, it was a model of that greatest gem of late French Gothic, the church of Saint Maclou.

A glance was enough to prove that this was not one of the ordinary crude miniature copies of a late period from a monument already built, but an exquisite work of mediæval art. Reference to the catalogue and to various books showed that it had always been regarded as a copy made by some priest attached to the church of Saint Maclou, who lived, some said in the XVIth, some said in the XVIIth century, and whose labor of love lasted between ten and twenty years. M. de Beaurepaire, it seemed, had even supposed that he had found a document that proved its author to have been a priest named Housset in about the year 1680. Apparently no specialist in Gothic architecture had ever taken the trouble to verify these worthless legends by a study of the model itself.

Built up in *carton* or papier maché by a masterly hand, it presented in miniature every smallest detail of the church, all the tracery in windows and gables, all the statues in their niches, the relief decoration and pinnacles. As I stooped down to examine the interior through the open side-portal, I could look through stained glass windows in the further wall, with their figured compositions—a most unexpected touch of completeness. The artist's genius had even been thoroughly successful in overcoming the greatest of all difficulties, that of introducing a wealth of detail in so small an object without impairing the general effect and the outlines, or giving to the detail undue prominence. Even the minute statuettes under their canopies were sketched in with the same subtle plastic sense. In its way this model equaled in

delicacy and perfection of workmanship the best Gothic reliquaries in gold and enamel in church treasuries.

As soon as it had become clear to me, after the first glance, that this model could not be the work of any priest nor of any layman, but an architect—and a great artist at that—I passed to the second question which at once obtruded itself. Was the model a copy of the church of Saint Maclou, or was the church a copy of the model?

In default of sure documentary evidence, the two works themselves must furnish the answer. Of course, once the fact was conceded that this was an architect's model, the presumption was clearly that it antedated the church, because there would have been no sense in a copied model, nor is it known that such a thing was ever made by an architect.

Still more than such a presumption could be gained by a comparative study of church and model. Fortunately, Saint Maclou itself was right there in Rouen, and I could pass from model to church and back again.

I found the general scheme exactly the same both in plan and elevation; but the differences in every detail were many and striking. Most important were the following:

(1) Under the curiously original pentagonal porch that covered the entire width of the façade, the two extremities are occupied in the *model* by two large windows like those in the aisles: in the *church* these do not exist, and there is merely a blank wall.

(2) The bays of the side-aisles are covered, in the *model,* with a row of pyramidal roofs, rising acutely, as they do actually in several Norman churches of the XVth and XVIth centuries, such as Saint Ouen at Rouen and Saint Pierre at Dieppe: in the *church* the line of roof is unbroken, the usual continuous pent roof.

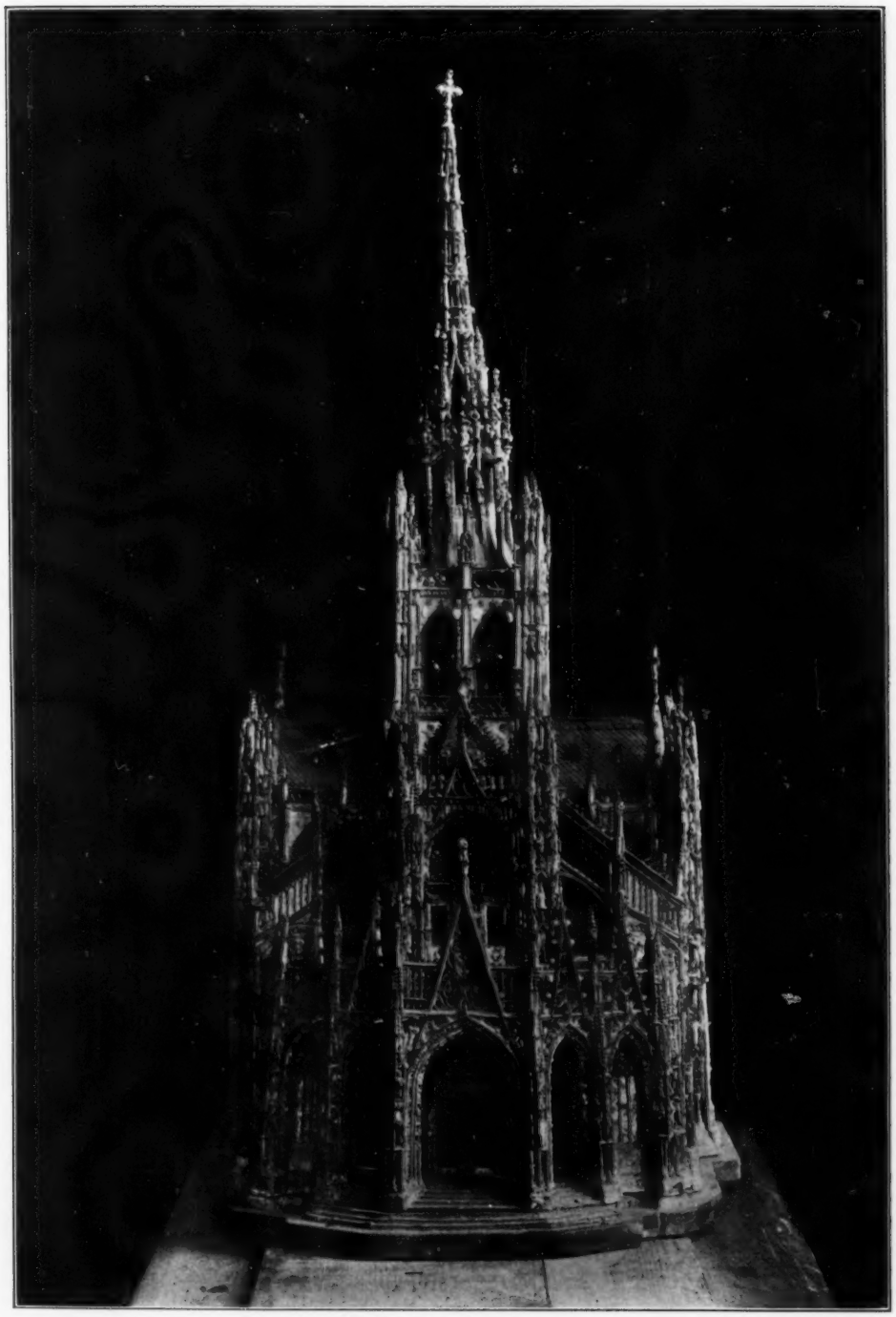
(3) The decorative system is quite different. The tracery of the rose windows, of the other windows, and of the gables in the *model,* is transitional from the geometric to the flamboyant, as one would expect in the years between 1400 and 1425, full of graceful curves and delicate designs; while in the church there is a much later and thoroughly flamboyant style, heavier, more abrupt and angular.

These are the main differences, aside from the more symmetrical hexagonal shape of the great tower-piers in the model; and its richer decoration of flying-buttresses and of sculpture.

These various differences are altogether too marked to be due to chance. In themselves they dispose of the theory that the model was copied from the church.

Intrinsic evidence, therefore, makes the model earlier in date. Let us see what was the history of the construction of Saint Maclou itself and whether it will throw any light on the age of the model.

A study of the original documents, especially of the accounts of the *Fabrique* of the church during the time of its construction, has given unexpected facts. Saint Maclou had become an extremely popular parish church early in the XVth century; so much so, that the structure, exceedingly old and small, was both unsuitable and insufficient. In 1414 the greatest Gothic architect of Normandy, Jehanson Salvart, who had charge of the work on the cathedral of Rouen, contracted, with the assistance of another prominent architect, Martin le Roux, to execute a piece of work for the treasurers of Saint Maclou, for the considerable sum of 300 gold pieces (écus). It could not have been for work on the old church, for it was not restored, nor on the new church, for it was not begun; nor could it have been for any such work as was paid by day's wages, but only for some such object as this very model. Unfortunately the contract leaves the object unspecified, so this remains a conjecture! At about this time came the English conquest of Normandy, which temporarily put a stop to most building enterprises; but toward 1432, with the help of the archbishop, work on the new church was actually started. As the accounts of the first four years are missing, we do not know what architect directed the beginnings. It was in process of construc-



MODEL OF CHURCH S. MACLOU, ROUEN—FRONT VIEW.

tion for nearly ninety years, being completed in 1517 and consecrated in 1521.

During the course of these hundred years it was natural that, while the general scheme of the model should have been adhered to, the various architects who had charge of the work and who made the working drawings and moulds for the details, should have followed the fashion of the hour in their decorative style instead of the fashion of the model. This, and a tendency to economize by eliminating certain features, such as the façade windows, or by reducing the decorative richness, as in the case of the buttresses, accounts for nearly all the differences. The main exception is the change in the form of the aisle roofs from the series of pyramids to the continuous pent roof. Here the explanation lies in the fact that the pyramidal roofs were a local Norman peculiarity, and that the architect Pierre Robin, who seems to have been called in from Paris in 1436-7 as advisory architect at the time when this lower part of the structure was in process of erection, was probably responsible for the change to the Parisian plan of covering.

The names of most of the master-architects in charge of the construction of Saint Maclou from 1436 to 1521 are known from the accounts. They were Oudin of Mantes (1436), Simon le Noir, Jean Chauvin, Ambroise Harel, Jacques le Roux, Jean le Boucher. To the last of these we owe the execution of the beautiful tall central spire, of which only the model gives us any idea, for the present spire is modern. The original was of wood covered with lead and largely gilt—one of the most exquisite in France. It was found necessary to tear it down at the close of the XVIIIth century.

In many other ways the model approximates more closely to the original church than the present edifice. The terrible storms that more than once made havoc with the delicate stone work depleted the decorative sculpture and ornamentation and it was never replaced. The main portal was originally not divided by a central support; and the famous wooden carved doors of Jean Goujou (?) were added in 1540 and do not appear as part of the scheme in the model.

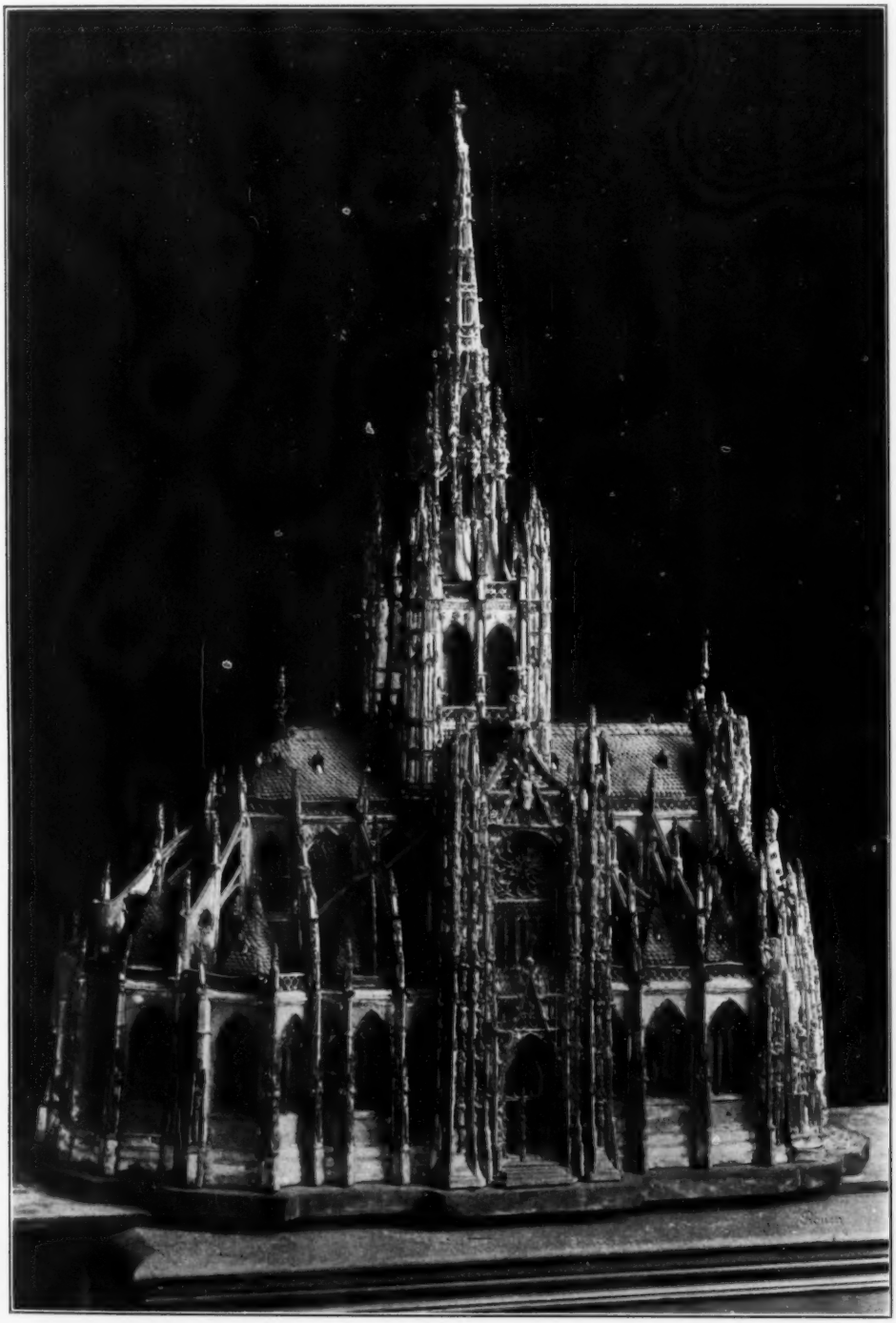
The dimensions of the model are:

Height, 3′ 2.″ Length, 2′ 4.″ Width, 17¼.″

It was made in two sections. The body of the church is in one piece; the façade with its annexes was made separately, and the two parts fastened together. The interior is hollow and sustained by some piers, but they are formless and there is no attempt to shape the interior as it was intended to be. The model was only for the exterior. Perhaps this explains the extraordinary feeling of disappointment that one feels on entering the church itself—such a commonplace and unsymmetrical hall! It was not planned by the genius of the author of the model, Salvart (?), but by his commonplace successor.

The model was colored. The imitation tiling of the roof is black, the rest is in two shades of grey-brown, of which the lighter is applied to the backgrounds, while the outlines and the parts in relief are picked out in the darker tone. There are also traces, now quite faint, of the use of other colors in some details, especially gold, with an occasional use of blue and red. This must be in harmony with the church itself, because the accounts show the actual use of considerable color on the exterior, especially of gilding, which was applied, for instance, to the leading figures and spire of the tower.

The condition is remarkably good, considering the fragile nature of the material and the delicacy of the ornamentation. It must have been carefully preserved in the sacristy, treasury or some other annex of the church from the beginning until the close of the XVIIth century. In about 1680, however, a tragedy occurred which has left its mark. Attached to the church at that time as sacristan was a priest named Housset, who proved himself a most scandalous fellow and hurried the poor curate of the church into a premature grave by the financial complications which he caused. He was party to a law suit, in the course of which he testified that he



MODEL OF CHURCH S. MACLOU, ROUEN—SIDE VIEW.

had made a beautiful model of Saint Maclou, which he valued at between 3,000 and 4,000 gold pieces (*livres*), and which he had taken to Paris and deposited for a while in the Royal Cabinet des Antiques, with the view of its purchase by the King. This was frustrated in some way, perhaps, by the discovery that he had purloined the model from his church.

At all events, the knave's claim to have made the model appears to rest upon a number of minor restorations in very poor style, which he probably found it necessary to have made in order to put the model in presentable condition. There are, for instance, a few puppet-like statuettes, gilt and heavy, of Rococo effect, which swear at the rest. There are clumsy restorations of the balustrade, a new finial to the spire, etc. After the time of Housset the few new damages that occurred remained unrestored.

The model seems to have been returned to the church and its curate and to have remained in its possession, except for a peregrination that it made toward 1720 to the house of M. Lenormand, then curate of Saint Sever, who had previously been vicar of Saint Maclou. In 1835 the curate, Abbé Gresil, sold it for 800 francs to the city in order to get bread for his starving parishioners, and since that time it has belonged to the Museum.

To return now to my own connection with the model after I had thoroughly convinced myself of its character. On reaching Paris I hesitated to speak of it to any of the leading specialists in Gothic architecture, for fear of the ridicule they might cast on what seemed the preposterous claim I wished to make for it. I found that Camille Enlart, director of the Trocadero Museum, author of the recent authoritative manual on the history of French art, and considered a special authority on Gothic architecture, had within a few weeks published a volume on Rouen as an art city. To my amazement he mentioned the model only casually and entirely failed to understand it.

I began to doubt myself. Perhaps it *was* a copy! I went to the veteran professor of French architecture at the Ecole des Beaux Arts, M. Boeswillwald: he denied that any model by a Gothic architect existed in France. Finally, the recognized leader of all Gothic students, the charming M. de Lasteyrie, while still sceptical, volunteered to introduce me at a meeting of the *Société des Antiquaires de France*, in the Louvre, should I care to present the matter. Thanks to the fine large photographs I then had made, I was able to convince at the meeting not only M. de Lasteyrie, but the rest of the specialists, such as M. Lefevre-Pontalis, that the model was what I claimed, a unique relic, an unequaled direct product of the brain and hand of one of the foremost Gothic architects. The seal of this approval was the request to publish the model in the Monuments Piot, the organ of the French Institute.

What also pleased me was the verdict of that veteran architect and writer, Auguste Choisy, whom we all know for his authoritative folios on Roman and Byzantine construction and for his general scientific history of architecture. He told me that he considered the discovery of the model epoch-making because it furnished the beginning of a sure basis for a study of the geometrical ratios that underlie the æsthetics of French Gothic. The buildings themselves, so largely renovated and so subject in their construction to the caprices of the commoner run of architects, are far less pure as a source. This study I expect to make on my next visit to France.

I will also confess to a very human weakness. Some years ago the same Enlart, whom I have just mentioned, had tried to deprive me of the credit of discovering the series of delightful Cistercian monasteries in Central Italy, which prove that the early Gothic style had been first brought into the peninsula by the French Burgundian monks some forty or fifty years before any one had supposed that any Gothic existed in Italy. I could fancy how bored he must now feel to have this same American discover something that had lain for years under his eyes unrecognized in a city of which he had just written the artistic history. I noticed that he studiously absented himself from this particular meeting of the Antiquaires de France!

A. L. Frothingham.

"Civic Improvements"

A Reply

In a discussion of "Civic Improvements," with "the case of New York" as his text, Mr. Herbert Croly began a recent article in this magazine with these words: "The sincere friends of the improvement of our American cities in convenience and appearance should not disguise from themselves that the movement is not making as much practical headway as it should. * * * Improvements in public art and architecture have created a great deal of interest and enthusiasm as long as they remained on paper, but as soon as it was attempted to transmute the paper into steel and stone, both interest and enthusiasm have very much diminished. Either nothing at all has been accomplished or else only half measures have been adopted. The movement has not had the momentum to override the first practical obstacles which stood in its path." If this did not overstate the case, the condition would be a very disheartening one, and one which we Americans would do well to face as quickly as possible. I believe that it does overstate the case.

Mr. Croly, admitting the considerable measure of success in Washington, finds this "largely owing to the fact that the influence of President Roosevelt has been consistently used on the right side." It does not seem to him, therefore, to be a significant example. He recognizes "a certain amount of progress" in Cleveland and other cities; but "on the whole" he holds to his opinion. He cites in illustration the failure of Baltimore and San Francisco to rise to the opportunities that the fires afforded; and describing the ineffectiveness, even in promise, of the report issued last winter by the City Improvement Commission of New York, speaks of that as "perhaps the worst failure of all." It may be replied that the cases of Baltimore, San Francisco and New York, are no more typical, and are no fairer examples, than is the success in Washington, and that if the latter proves nothing the former do not.

In Baltimore no city-plan that had to do with the street arrangement of the business section had been prepared when suddenly a fire devastated a large portion of that section. In bewildered recognition that there was possible a better street plotting than there had been before, and that it was a need of Baltimore, public opinion supported the mayor in his immediate appointment of a commission to plan for the rebuilding of the city on more modern lines. But his appointees were local business men. They grappled with their problem conscientiously, but they never had made a study of the science of city planning and, goaded by the insistent cry for haste, could hurriedly devise no better scheme than the widening of certain of the streets. As far as their recommendations went, they were carried out to the letter. Ten and a half million dollars was put at the disposal of the Commission by the stricken city, and in the following year popular vote authorized by a large majority an issue of thirteen million dollars more, in bonds, for further civic improvement—suburban development, additional parks and sewers. If Baltimore failed to realize its full opportunity, it was not because the actual accomplishment fell short of the local ideals; it was because those ideals were not as high as they are to-day. Baltimore was unprepared, but to the utmost limit she made "the practical headway" that her advisors suggested to her.

For San Francisco, when calamity came upon the city, there was in readiness a plan magnificently ambitious in scope and wonderfully beautiful in detail. But it was not yet in the hearts of the people. Published in book form with an elaborateness designed to convince and to appeal to the citizens' loyalty, as the opening gun in a campaign of education, the books had no chance to fulfill their mission. The writer happened to be in San Francisco five days before the earthquake, and saw the Burnham reports stacked high in a down town business

building awaiting distribution. That building was one of the first to go in the fire. He has not heard whether the books were sent out before the catastrophe, but if they were, they obviously had no time to create that "interest and enthusiasm" which is described as diminishing when put to test. Yet, in spite of this condition, the plans almost won out and in some details they actually are to be put into execution.

As to "the case of New York" which Mr. Croly uses as the secondary title of his article—so thoroughly does he go into it, accepting the city as an example of others—his argument may be taken up with more detail. The City Improvement Commission, he notes, "was, in its way, an official recognition of the fact that New York ought to be a better looking, a more convenient city, and that its authorities had decided to make an earnest effort in that direction." Its appointment was, therefore, regarded, he says, as a substantial triumph for civic art. A year after its appointment, the commission brought in a "Preliminary Report"—moderate, tentative, experimental, recommending nothing. This fell flat.

But is it any wonder, and what is to blame except the Report itself? In big, rushing, practical New York, a small group of citizens brought out, in paper covers, a report which practically said, "Excuse us; we don't mean really to suggest this; but would it not be nice if this and the other big and costly improvement could sometime be made in our city? But don't, please, jump on us; we'll tell you next year, or the year after, what we do mean." They were taken at their word. Nobody criticized. The rush of life went past them with hardly a side-long glance or smile. And when, a few weeks ago, the final report did come out and was found to repeat most of the early, tentative suggestions—very reasonable and good ones they were—a few gave to it respectful hearing and discussion, but most found it a twice-told tale—a thing which there is not time for in New York. The Commission, in the city where, above all others, public opinion has to be shocked to be aroused, had spent its powder in a salute. It had made a fatal tactical mistake.

Even that is not the whole story. When Mr. Croly says that the failure was due "not merely to the character of the commission," he admits that it was due in part to that. The members were all competent and public-sipirted; but they were local critics; and prophets to be effective must come from without.

In any case, Mr. Croly thinks, the New York Report must have failed of securing notable results. "The most important cause" of failure, he states, was the lack of the supporting public opinion; but even with that there was an insurmountable obstacle to the realization of fine dreams in "the financial condition of the city." This, he explains, "is peculiar." Hence even this condition is not as typical as later on he suggests.

Without going into his exposition of the local financial condition, we may take up the possible remedies which he considers. These are a couple of constitutional amendments. One would exclude from reckoning in that municipal debt upon which the constitution places a limit the money expended in making those elaborate street changes advocated in a City Plan Report; the other would permit the city to condemn not only land actually necessary for a new street, but immediately adjoining property as well, in order that after the improvements are effected the city, by the resale of this adjoining property at the enhanced value given by the improvements, might recoup the cost of making them. This is the device familiarly in use in transforming cities in South America and in Europe. Such amendments, he is sure, would be most difficult to secure: "Public opinion would want to be very much more convinced than it is that the municipal officials are incorruptible and competent. * * * As long as our municipal governments are untrustworthy, public opinion will be loth to sanction any considerable increase in their legal powers; and as long as such increase in legal powers remains unsanctioned, the vision of a beautified and glorified future for our larger American cities must remain, to a large extent, impracticable." Even smaller

cities, he adds, to accomplish results, must obtain "municipal governments like that of Galveston."

It appears that Mr. Croly's article, which is most interesting and suggestive in many of its details, not only finds civic improvement falling in actual achievement far behind the standard which is set by the considerable amount of writing on the subject, but that it pictures a long and hard road of administrative reform which must be traveled before the improvements really can "arrive." This conclusion is so opposed to popular opinion as to challenge inquiry.

Of the cities mentioned in the article, Washington, Baltimore, San Francisco and New York, the first, since he objects, may be excused as a witness for the defense. The testimony of the second and third, on cross examination, seems not to have helped his case. To the fourth we may make objection on the ground that its conditions, as he confesses, are peculiar, and hence it is no better qualified to bear witness than is the first. So much for those cities. The defense may take its turn.

Public opinion would be loth to give to city governments, Mr. Croly believes, any of the powers suggested in the constitutional amendments that he describes as necessary for large achievements. The State of Ohio does give to Ohio cities, by sections ten and twelve of the Municipal Code Law, precisely the authority he recommends, viz., permission to buy more land than is actually needed for an improvement, with power to resell it after the improvement is made. Pennsylvania has just conferred precisely similar powers upon the cities of that State. In Connecticut in the spring a bill was enacted that gave these powers to the Commission on City Plan of Hartford. There is no question that civic improvements would be furthered by progress in municipal reform, but even such important increase in the legal powers of municipal officials as Mr. Croly imagined for an ideally trustworthy administration has not waited for administrations to become better than they are. That is a proof of how earnestly public opinion has desired extensive civic improvements.

As to actual achievements, how long is it since men began to think of making American cities beautiful? Mr. Croly speaks of "the past seven or eight years" as the time in which "an enormous deal has been written about this subject," and he is not likely t. have weakened his argument by understating the period. Let us accept his figures. What are seven or eight years in the life of a city? How short a period is that in which to educate people to a wish for civic beauty, to make them believe in its possibility for their own city, to overcome the inertia of a statu quo, to sweep aside the obstacles of the double fear of a higher tax rate and of the dishonest use of the money if it were appropriated! Must it not take in a commercial age a lot of writing and speaking and organizing to awaken these new aspirations in the minds—not of the few, but of the many, to overcome misgivings and prejudices, to rouse public opinion to the point of a "divine discontent" that cries "forward" even at possible self sacrifice? Seven or eight years for all this, and the taunt that achievements are not yet on a par with visions!

What, indeed, has been done? We are not to speak of the success in Washington, where comprehensive modern city planning was first undertaken in America. Well, Harrisburg followed. Five thousand dollars was provided by private subscription to secure a plan, then private pockets furnished five thousand dollars more to put the plan before the people, and the people—without the aid of a political machine—authorized a million dollar bond issue for carrying out the plans in such a vote that only three precincts in the whole city gave adverse majorities, and of these the most formidable was less than a hundred. Cleveland meanwhile was beginning to dream of that group plan for the public buildings that now, involving an expenditure of thirteen millions of dollars, has taken visible shape and is making the city famous.

It was at this time, too, that Springfield, Mass., first began to think seriously of buying back some of the river front that in the old days had been sold to the

railroads. The plan was to extend Court Square to the river's edge, but it was found that even so modest an accomplishment would take a hundred thousand dollars. A movement was started; it spread among all classes of citizens; less than fifty persons gave over $100 each, and the rest was made up of small contributions. On the date set for the completion of the fund it was found to have passed the $100,000 mark by $1,400. So did achievement keep pace with the vision. Now measures have been taken in Springfield to buy back two miles of river frontage, and to have a civic center at Court Square. Two citizens have given $50,000 each, a dozen have given an average of $15,000 apiece and one has given a million dollars. It is a pity to write a financial column when one is trying to picture the sincerity of civic aspiration, but figures talk.

Philadelphia is counted conservative, but of the great Fairmount Parkway, which the city is cutting in a straight swath from the City Hall to the Park, any "Haussmannized" city of Europe might be proud. It is an achievement that has followed the writing about it. Now other plans are being written up, and are as likely to be executed. Or, to go far West, a city plan report was obtained a year ago by Oakland, Cal. In January the matter was put to the people's vote—should they authorize the expenditure that was proposed? The total affirmative vote was five to one, and there were whole precincts in which the negative votes were in a single figure.

So one might go on from point to point in the United States, to show how in earnest the people are as regards this matter of civic improvement, and how achievement follows their earnestness—as it must in a democracy. There are four distinct steps of progression. First, there must come the talking and writing on the general theme; then the specific application of the general principles to the case in hand—the answering of the query, which itself is so significant of interest, "What can *we* do to make *our* town better?" This answered, the third step is the financing of the project; and last of all comes its actual execution. It is seven or eight years, we are told, since civic improvement began to be a good deal written and talked about; and the fourth step is not yet as conspicuous as the first! But the cities that were the earliest to take the first step are now at the fourth; those which came next are at the third. There is hardly any community where the first step has not now been taken, and the number that have taken the second—going to expense to secure professional advice—is admittedly very large.

The importance of that second step should not be overlooked. Of itself a civic improvement victory, it ought not to be dismissed as meaning only another batch of writing and theorizing to be instantly disregarded in the cases where "practical" results are still invisible. Is there not bright promise when a community, indifferent previously to the local possibilities of civic beauty, becomes so aroused that it authorizes its officials to appropriate five hundred, or a thousand, or five thousand, or ten or twenty-five thousand dollars from the public treasury, or raises this sum by private subscriptions, to secure such plans? Architecturally speaking, the action is equivalent to that of the individual who pays for a set of plans and specifications. At the moment his house is on paper only, but in nine cases out of ten he is going to build. And this is the position to-day in something like a score of cities and towns—such as Detroit, Columbus, Los Angeles, Denver, Greenville and Columbia, S. C.; Watertown, N. Y.; Cincinnati, Honolulu, Buffalo, Colorado Springs, St. Paul, Chicago, St. Louis, Boston, Brookline, Pittsburg, Portland, Indianapolis—not to repeat any of those named before. These cities have progressed from the first step to the second; in about half of them negotiations for the third are pending; in three or four years they will be taking the fourth.

The wonder must not be at the paucity of the achievement, but that in so short a time and against such serious obstacles so much could have been actually done.

Charles Mulford Robinson.

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

INTRODUCTION.

The topographical evolution of any city, must be, in the main, fortuitous. Conditions of site, necessities of commerce, methods of transportation, massing of population are the forces, which in general, determine the plan. Only occasionally is it possible to foresee what will be required in the long run, and to design an ensemble which will do its work properly. This was done in the case of certain cities of the Alexandrian and Roman empires and notably, in the installation of our own beautiful city of Washington.

To the general proposition that a city builds itself Paris is not altogether an exception. The town owes its origin and success to accident of place and commercial requirement. Until the middle of the seventeenth century it yielded to all the conditioning necessities which governed the growth of medieval cities. At this moment, however, the plan of the city fell into the hands of Louis XIV. and his Académie de l'Architecture; people who knew their Paris well, who remembered her past, and could foresee her future. They understood what topographical and commercial conditions would ultimately require. More dominant still was their appreciation of the fact that their city was the home of a cultivated people who would in the end demand most perfect civic surroundings. They drew the lines of Paris in the open country, through farms and gardens. The city filled out to the large general scheme, and public opinion insisted upon its preservation.

Finally, at a moment of culmination in the middle of the nineteenth century, when modern civilization came to its flower, and it appeared immediately necessary to provide for new and powerful forces centering in civic life; two men advanced with extraordinary qualifications for solving the problems presented. One was a monarch, self-imposed, to be sure, but still resting on the will of the people; broad-minded and humanitarian in his way; with perfect understanding of the complicated conditions confronting him. The other was a man of genius, who responded to his vast opportunity in a manner which was, at the same time, sympathetic, deliberate and resolute. Haussmann found himself standing with Napoleon III at precisely the moment which the people of the seventeenth century had foreseen and provided for. He found the city magnificently blocked out, and finished the task of transformation brilliantly; with a delicate appreciation of conditions, which included profound respect for the work of his predecessors.

HISTORICAL.

Paris first appears in history as a little cluster of huts on a group of islands in the Seine near the point where the waters of many branches converge in the main stream. The savage Celts and Gauls lived along the water-courses, which in the flat French country furnished easy channels for their primitive inter-communication. The boatmen of the Seine, Caesar's Parisii, found in the little group of islands a safe and convenient entrepôt, and during the period of Roman domination, developed an interesting organization, the *Nautae Parisiaci*, which became in the middle ages the *Marchands de l'Eau*, and, in the end, the municipality of Paris. They left their symbolic ship on the civic seal. The Paris of the Romans was a considerable city which they called Lutitia; a name based probably on the Greek *leukós*, white; and doubtless suggested by the beautiful white stone of the region which, then as now, was the facile material of construction. The White City has always found its center on the little island where the Parisii planted it.

The bit of country in which Paris was placed was most unprepossessing; a shallow basin, composed chiefly of marshes, with a quiet river winding through, and bounded by a circle of low limestone hills. Many similar localities may be found in the central tertiary plateau of France. London and Berlin are situated in the same sort of country. Compare the monotonous surroundings of

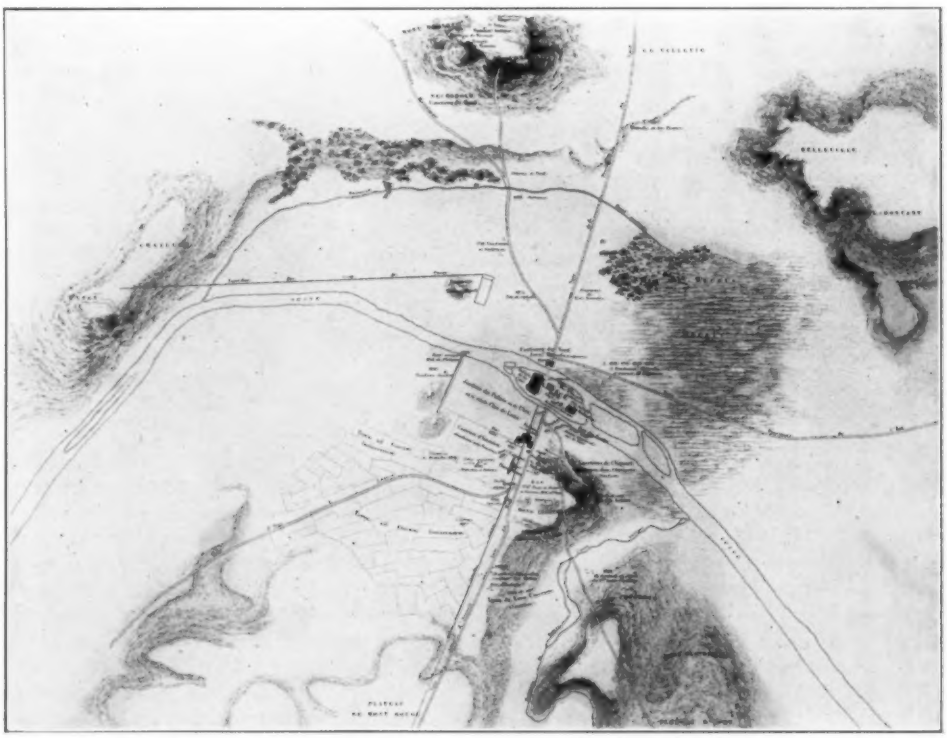


FIG. 1. SCHEMATIC PLAN OF ROMAN PARIS.

these cities with the brilliant bit of broken territory in which New York is placed.

Paris has, however, one advantage over other great cities, in the fine white limestone which underlies the soil for miles in every direction; much of it, like the *lias* and *cliquarts* of which Nôtre Dame is built, taken from under the foundations of the city itself. Such architectural delicacies as the Parisians delight in, can only be executed in limestones of the finest quality and of these Lutèce has abundance.

THE GRANDE CROISÉE.

The cluster of islands in the Seine were not only a convenient haven and exchange for the *Nautae Parisiaci*; it also gave passage to the main Gallo-Roman road which came up from Orleans (Genabum), and went on through Senlis (Silvanectes) on the east and Beauvais (Bellovaci) on the west to Belgium and Britain. Through the site of the city it followed the line of the Rue Saint-Jacques and the Rue Saint-Denis. To the north of the Seine (the Rive Droite) there was formed quite early another road roughly parallel to the river, following in the main, the present Rue Saint-Honoré and Rue Saint-Antoine. These two currents have always been the chief lines of traffic in the city and constitute the *Grande Croisée*, as it is called

in the language of Parisian topography. The rectification of the *Grande Croisée* seems to have been considered by the architects of the seventeenth century, and was the primary concern of Haussmann in his transformation of the city.

THE ENCEINTE OF PHILIPPE-AUGUSTE

Paris has always been obliged to bear in mind the possibility of invasion. This, with the constant growth of population, has led to the construction of a series of

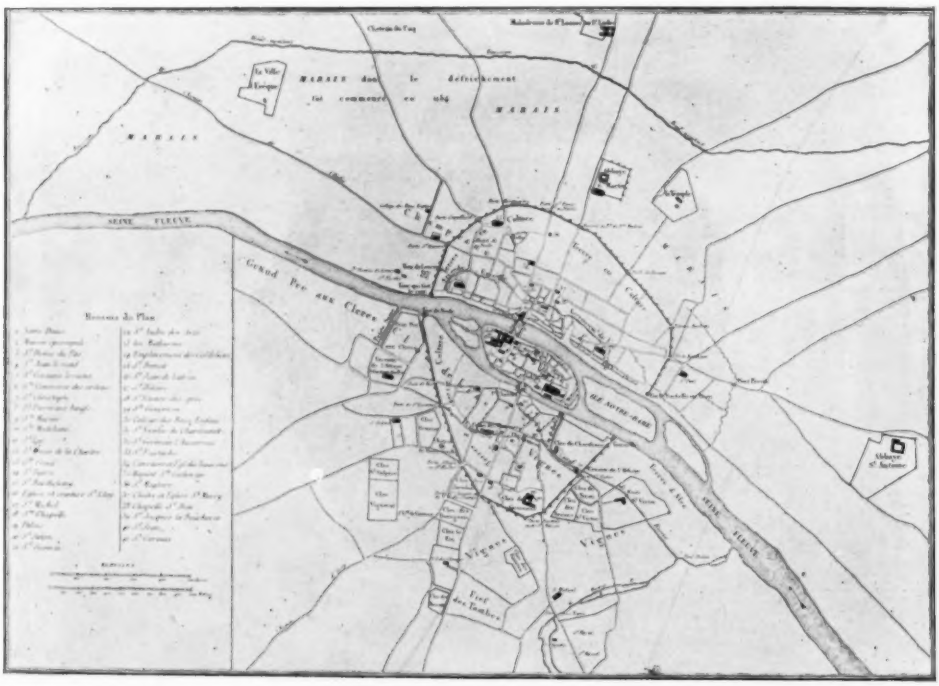


FIG. 2. SCHEMATIC PLAN SHOWING ENCEINTE OF PHILIPPE-AUGUSTE.

circumvallations or *enceintes* which have had a dominant influence upon the plan of the city.

The first *enceinte* was a simple wall built in the fourth century about the largest island, the Cité, which was connected with the mainland by two bridges, the Grand-Pont on the site of the present Pont-au-Change and the Petit-Pont on the site of the present bridge of that name. The outer defenses of these bridges developed into the Grand and Petit Chatelet. During the invasion of the Normans in 885 the population of the city was so far depleted that it was contained within this walled island. But the vigorous little town set at the crossing of the finest waterway and the most important road in western Europe could not be contained within such narrow limits; and the greater city growing up on both sides of the Seine could not remain without protection. Philippe-Auguste (King 1180-1223) the first of the great trio of public spirited monarchs who have made the city of Paris, the others being Louis XIV and Napoleon III, grasped the situation perfectly. Before leaving for the third crusade in 1190, he ordered the construction of a fine wall of circumvallation which is the first of the Parisian *enceintes* to leave a permanent impression upon the plan of the city. On the northern side all traces have been obliterated, but on the southern side (Rive Gauche) the streets which replaced the moat still exist. Two of them, the Rue des Fossés Saint-Bernard

and the Rue des Fossés Saint-Jacques reveal their origin in their names. Outside the northern wall, and in contact with it near its point of connection with the river, the clever King built his fortress of the Louvre. It was always the endeavor of the Capetians so to place

Gothic Paris was a beautiful city. Gray Nôtre Dame was then fresh from the quarries, a creamy white. The royal palace stood on the site of the present Palais de Justice, its gardens extending westerly to the end of the island. In fine weather Saint-Louis held his *Lit de*

FIG. 3. SCHEMATIC PLAN SHOWING THE ENCEINTES OF PHILIPPE-AUGUSTE AND CHARLES V.

themselves that they might be in and out of Paris at the same moment. Enemies might appear at any time within or without. The city of Philippe-Auguste lay in three divisions, all north of the river was the *Ville*, the island was *Université*.

Justice under an oak. Much of the territory was occupied by the great clerical and royal establishments with their gardens, all within enclosures, so that the common people were obliged to shift as they might for their homes and places of business. The natural result of this was

FIG. 4. PLAN OF GEORGES BRAUN, CALLED "DES TROIS PERSONNAGES" (1530), TIME OF FRANÇOIS I.

crooked streets, bridges covered with buildings, and that wild, fortuitous beauty which is so valuable now in the few old towns where it still exists. Much of this Haussmann swept away, not relentlessly, but with keen regret, and a fine appreciation of its charm. The broad, healthy, open splendor which he

of France afterwards, might be able to acquire control of their own affairs. The Parisians under the powerful, but unwise, leadership of their Prévôt des Etienne Marcel, did secure independence temporarily, and in the old *Maison des Piliers* in the *Place de Grève* made a beginning of the Hôtel de Ville.

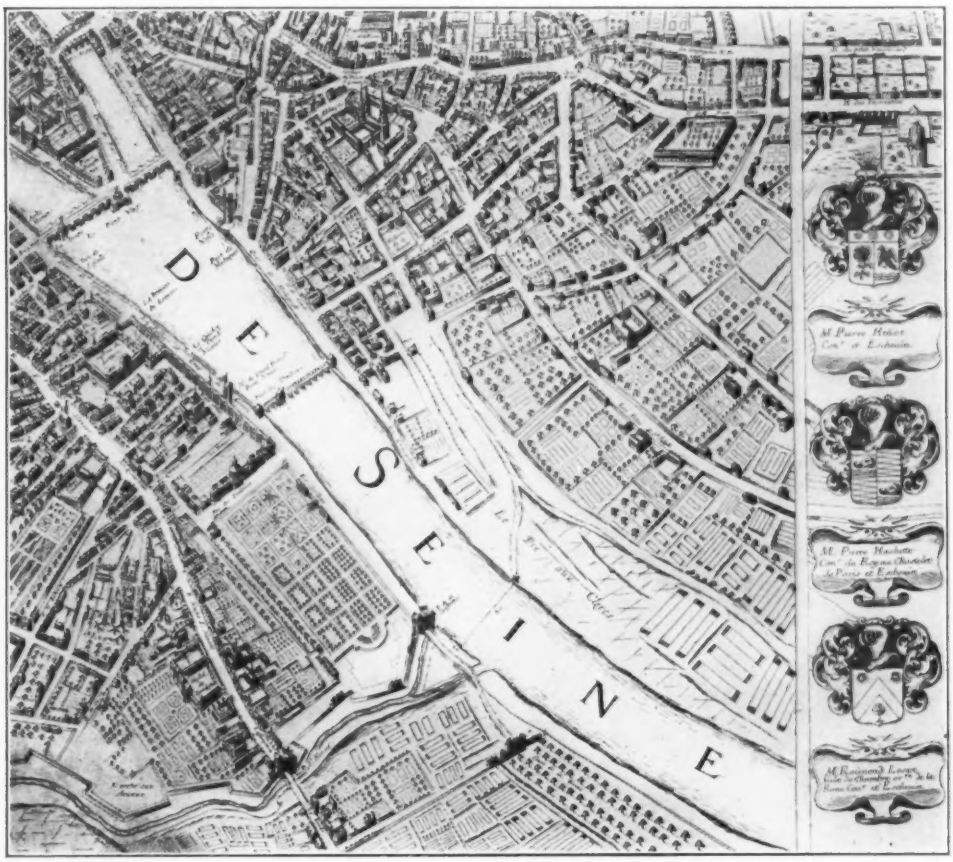


FIG. 5. ONE QUARTER OF MAP OF JEAN BOISSEAU (1654), SHOWING THE COURS LA REINE IN LOWER RIGHT HAND CORNER.

substituted is really more beautiful in quite an opposite way.

THE ENCEINTES OF CHARLES V AND CHARLES IX.

During the captivity of Jean II (le Bon 1350-1364), and the youth of the Dauphin afterwards Charles V (le Sage, King 1364-1380), it seemed for a moment that the people of Paris, first, and

To include the great properties on the north side, and the large population without the *enceinte* of Philippe-Auguste, Etienne Marcel began the line of circumvallation which, finished by Charles V, goes by his name. From the river on the east, it occupied the site of the present Boulevards as far as the Porte Saint-Denis. From this point it followed a line which passes through the

Place des Victoires and Place du Theatre Français to the river near the Pont du Carrousel. The *enceinte* of Charles V was not carried over to the south side. One result of the construction of the wall, which was probably foreseen by Marcel, was to bring the Louvre Castle within the city. This forced the king to build the Bastille (1369) against the wall on the other side to take its place. From this moment the Louvre ceased to be a castle and became a palace.

During the Renaissance period the growth of the quarters of Saint-Honoré and Saint-Roche; and especially the construction of the Palace of the Tuileries with the Pont-Rouge, now Pont-Royal, connecting the region with the fine territory of Saint-Germain-des-Prés; forced the authorities to build an extension of the *enceinte* of Charles V, from the Porte Saint-Denis along the line of the western Boulevards, the Rue Royale and the axis of the Place de la Concorde. This extension was begun under François I (King 1515-1547), and completed by Richelieu under Louis XIII (King 1610-1643); but it is always called the *enceinte* of Charles IX (King 1560-1574). The line of circumvallation on the north side, the *enceinte* of Charles V with the *enceinte* of Charles IX is fundamental to the plan of Paris.

The Renaissance period in France begins with the invasion of Italy by Charles VIII (King 1483-1498), in 1494, and ends with the death of Henry IV (King 1589-1610) in 1610. The topographical arrangement and appearance of Paris did not change much during this time from their mediæval condition. The great enclosures of the privileged classes still existed with the consequent congestion of the shops and houses of the common people in picturesque streets. The architecture of the Renaissance time is delicious; as for instance the old Hôtel de Ville, the court of the Louvre, the Pont-Neuf and other charming examples.

To Henri IV is due the characteristic scheme of placing at populous or otherwise important points in the city, great public squares surrounded by houses built according to a uniform and suitable design. The earliest of these was the Place Royale, now Place des Vosges, begun in 1605, from designs by the younger Jacques-Androuet du Cerceau, on the site of the palace of the Tournelles abandoned at the death of Henri II (King 1547-1559). The Place Dauphine on the site of the palace garden in the *Cité* was also created by Henri IV. In the reign of Louis XIV similar squares were established in the Place Vendôme and Place des Victoires.

THE BOULEVARDS.

During the stormy period of the middle ages and Renaissance a rational arrangement or reconstruction of Paris was impracticable. The rigid lines of fortification created conditions from which there was no escape. There are indications that the wise King Philippe-Auguste, who laid the first pavement of Paris in the Rue de la Barillerie before his palace, would have done many fine things if he could. François I took up a scheme for improvement, which was proposed to him, with much enthusiasm. But neither of these intelligent Kings, nor their subjects, who realized the depressing conditions under which they were obliged to live, could accomplish any large improvement. It was left to the broad autocracy and splendid culture of the period of Louis XIV (King 1643-1715) to conceive a new type of city which should be not only a proper metropolis for France, but should also meet the conditions of advancing civilization and be a suitable model for future civic construction.

The work began with the demolition and reconstruction of the northern line of fortification. During the interesting reign of Henri IV and more during the powerful domination of Richelieu and Mazarin in the reign of Louis XIII, the style of fortification was entirely changed. The simple wall with turrets which sufficed in the days of Jeanne d'Arc became obsolete and was replaced by a line of triangular bastions which the people called *boulevarts*, a word identical with the German *Bohlwerk*, and the English bulwark. The earliest and largest of these bastions was immediately to the north of the Bastille and the Porte

Saint-Antoine and was always called the *Grand Boulevart*.

With the disappearance of the disturbance caused by the Fronde, and the proclamation of the majority of Louis XIV in 1651, profound peace settled upon Paris. Louis, although only a boy of fourteen, at once became the most dominant personality in Europe, and through his long life made his country feared and respected. He was not averse to war, but managed to keep his stately campaigns beyond the limits of his own country. The old fortifications, remodelled by Richelieu fell into disuse. The people built wind-mills and planted trees on the bastions, or *boulevards*, and grass grew in the moats. The entire strip of land, and especially the grand *boulevart* of the Porte Saint-Antoine was used as a park and playground; practically the only park the people had. This condition is shown in the plan of Jouvin de Rochefort which is supposed to date from 1672.

At this moment the King and the authorities interested decided to accept the situation and to give the people what they wanted. A scheme was devised, probably best shown by the plan of Bullet and Blondel (1676), both leading architects, who were doubtless intimately associated with the work, which called for the levelling of the old fortifications and moat, and the construction on the outer edge of the space thus secured of a light wall with monumental gateways. Four of these triumphal arches, charmingly designed by François Blondel, were built, the Portes Saint-Denis, Saint-Martin, Saint-Antoine and Saint-Bernard. The two first are still standing. Within the wall the present avenue, still called the Grand Boulevard, was

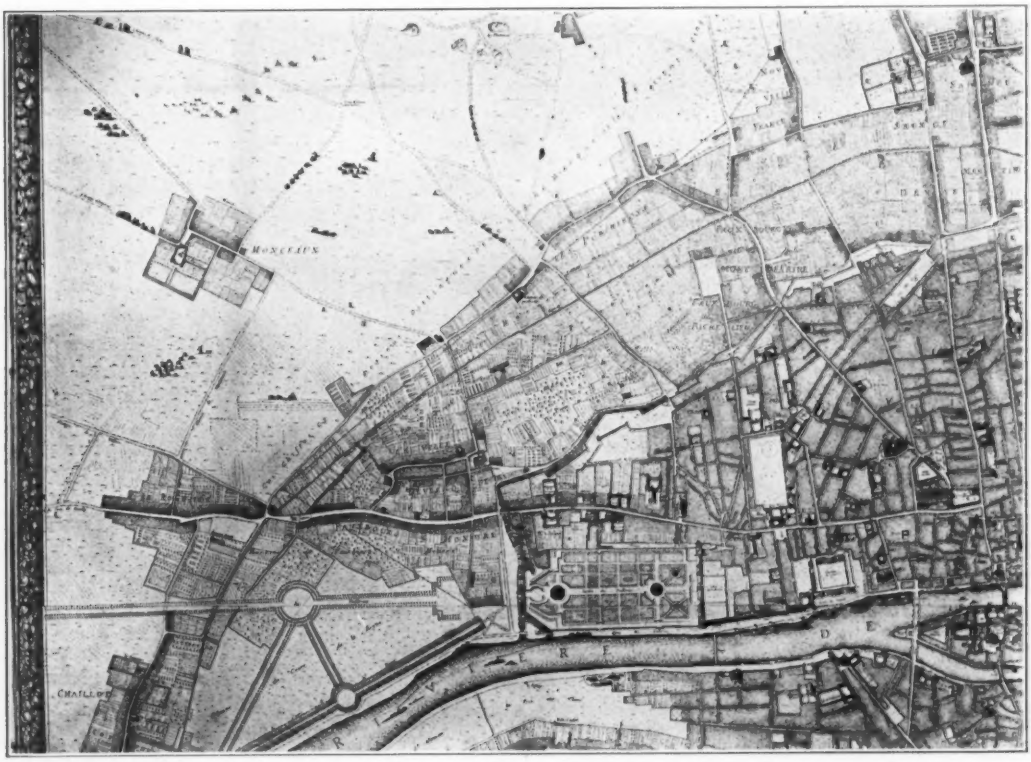


FIG. 6. PART OF MAP OF JOUVIN DE ROCHEFORT, SHOWING THE AVENUE DES TUILERIES, NOW DES CHAMPS ELYSEES, 1672.

placed, as it appears in the map of Bullet and Blondel and in all subsequent plans; but the actual construction of it was long delayed.

The plan of Bullet and Blondel, which was really a *projet* drawn by order of the King, shows a corresponding avenue on the south side, one section of which, the Boulevard Mont-Parnasse, was actually carried out in the eighteenth century.

FIG. 7. PART OF PLAN OF JOUVIN DE ROCHEFORT (1672), SHOWING THE BASTIONS (BOULEVARDS) OF THE PORTE SAINT ANTOINE AND THE BEGINNING OF THE PLACE DU THRONE (PLACE DE LA NATION).

The Grand Boulevard of Paris is the ideal *Ringstrasse*. Something like it has been substituted for abandoned circumvallation in many European cities; the fine parkway in Vienna being the largest development of the conception.

The outer line of boulevards in Paris is simply a repetition of the inner line. It followed and replaced the Mur d'Octroi (tariff-wall) which was built early in the reign of Louis XVI (King 1774-1793) and removed by Haussmann in 1860.

The imminent destruction of the present fortifications will create another line of boulevards or a ring of parks.

THE TUILERIES—NEUILLY AXIS.

In the history of architecture the reign of Louis XIV furnished the culmination of the classical scheme. The notion of symmetry is inherent in Greek design. The Hellenic architectural unit has a definite axis; but it rarely happened in Hellenic times that the units were arranged with any regard for symmetry or harmony among themselves. The street as we know it did not exist in Greece. The Romans placed their unit, which was essentially Greek, in an open square or forum surrounded by columns which gave to it dignity and importance.

They also invented a splendid type of street consisting of a double row of colonnades, with the roadway between, like the Cardo and Decumanus of Timgad and the central street of Palmyra, which, however, beautiful as it was, gave no opportunity for the placing of fine monuments along its course. During the middle ages the necessity for living within fortifications led to such congestion that the development of the street was impossible. The Renaissance period in Italy improved conditions a little. The Via Larga in Florence and the Via Nuova in Genoa are useful streets but not in the least ornamental.

It was the special task of Paris in the Bourbon period to invent and carry to perfection the ideal street. The boulevard, or avenue then created is fine in itself, with its clearly defined roadway and *trottoirs* and its cool rows of trees; but it is still finer in its adaptation to the placing of monuments, either along its course or at either end, where distance furnishes axial vista and perspective. It was precisely this large sense of axial symmetry which was the most perfect product of the prolific reign of Louis XIV,

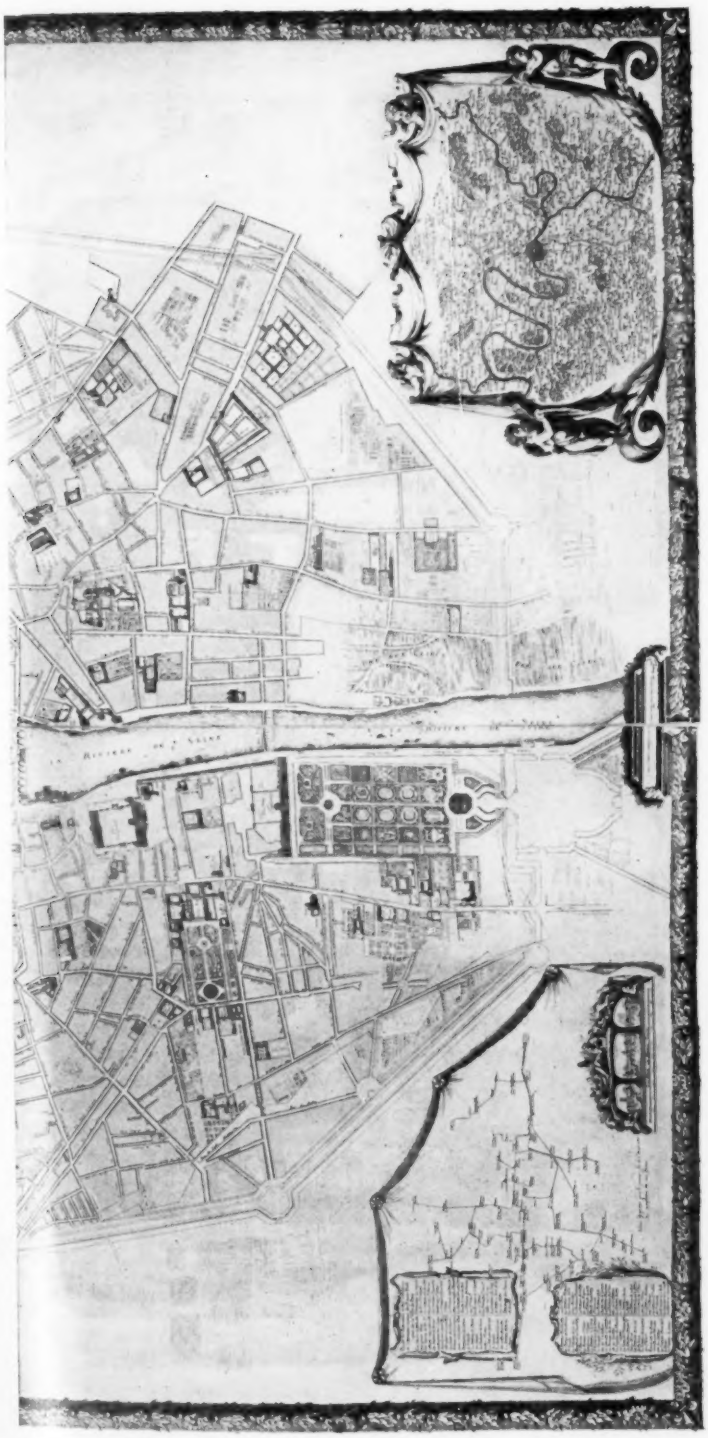


FIG. 8. THE PLAN OF BULLET AND BLONDEL (1676).

and the true completion of the classic idea.

What the designers of this period did for architecture and the street, they desired also to do for the plan of the city. It was logically in the course of events that they should seek an axis for the city of Paris; and to be expected that it should lie in the line of one of the arms of the Grande Croisée. The construction of the Tuileries palace in the time of Charles IX furnished the base from which such an axis might be drawn. A line at right angles to the palace in the axis of its garden, agreed well with the east and west arm of the Grande Croisée and was nearly axial to the intended enlargement of the Louvre palace. As early as the reign of Henri IV property in this direction beyond the *enceinte* of Charles IX was bought by the crown; and Marie de Medicis in the reign of Louis XIII laid out the Cours-la-Reine along the northern bank of the river. The Cours-la-Reine first appears in the map of Boisseau in 1654 and is probably the first street built on the perfected modern type.

In 1637 the famous André le Nôtre succeeded his father as gardener of the

Tuileries. He laid out the garden of the palace much as it is today, and it is quite reasonable to suppose that as "*Controlleur des Bâtiments*" to Louis XIV he saw the opportunity for a great avenue in the axis of the garden leading over the hill to Neuilly. At any rate this avenue is clearly defined in the earlier plan of Jouvin de Rochefort (1672) under the name Avenue des Tuileries. The *rond point* of the Place de Etoile appears in plan of Roussel in 1731. The Pont de Neuilly and the avenue to the river and across to Courbevoie were built in the reign of Louis XV (King 1715-1774).

In the plan of Bullet and Blondel (1676) a superb piazza is projected as an entrance to the Avenue des Tuileries, but the elaborate scheme for the Place de la Concorde which immortalized Jacques-Ange Gabriel was not finished until 1763.

In the plan of Jouvin de Rochefort (1672) appears for the first time the emplacement of the Place du Throne, with the triple arch *in situ* and the beginnings of the Avenue de Vincennes. If the axis of the Avenue de Vincennes is prolonged, it inclines only a few degrees from that of the Louvre-Tuileries mass of monuments. There is no proof for the hypothesis, but it is interesting to suppose that the city-builders of the Seventeenth Century desired to construct a great avenue between the Place du Throne and Louvre corresponding to that between the place de l'Etoile and Tuileries.

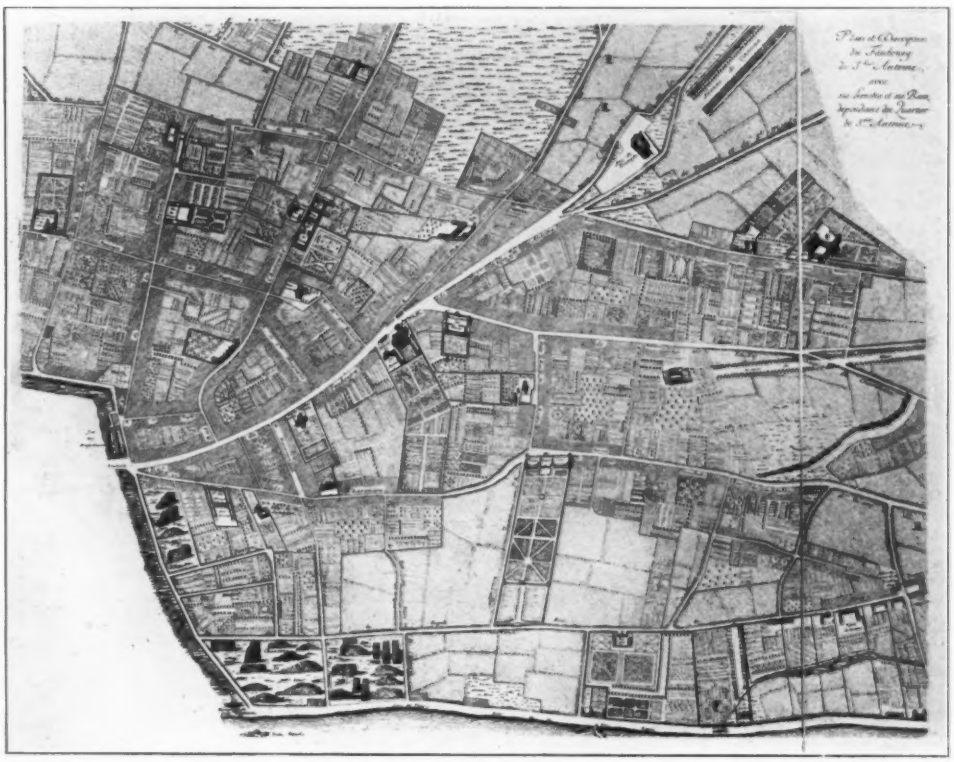


FIG. 9. PART OF PLAN OF LA CAILLE (1719), SHOWING PLACE DU THRONE AND RUE DU FAUBOURG SAINT ANTOINE.

The desire to introduce axial vistas into the plan of Paris during the seventeenth and eighteenth centuries resulted

in several monumental arrangements which are too well known to require discussion here; the Invalides, the Luxembourg, the Ecole Militaire and the fine

beautiful plan of Paris as we know it today was actually conceived by the architects of the seventeenth and eighteenth centuries. It will later appear that the

FIG. 10. ONE QUARTER OF THE PLAN OF JAILLOT (1775), SHOWING THE TUILERIES-CHAMPS ELYSEES AXIS, AND THE AXES OF THE PLACE DE LA CONCORDE, LUXEMBOURG, INVALIDES AND ECOLE MILITAIRE.

Place de la Concorde with its sunken parterres and equestrian statue, which was injured so much by reconstruction in the nineteenth century.

After this brief outline, it will, doubtless, be clear to one interested, that the vast activities of the nineteenth century were controlled by a loyal regard for the principles then established.

Edward R. Smith.
Reference Librarian, Avery Architectural Library, Columbia University.

NELSON ROBINSON, JR. HALL.
The home of the Harvard Department of Architecture.
McKim, Mead & White, Architects.

Cambridge, Mass.

The Department of Architecture of Harvard University

The scheme of professional training in architecture in Harvard University is based upon the conviction that an adequate preparation for the profession of architect under modern conditions involves far more than might suffice for the production of skilled draughtsmen or constructors. To be well prepared for the practice of architecture involves and includes both these, but it implies also scholarly familiarity with the resources of the art, knowledge of the practical needs that have to be met and expressed, and a keen and intelligent sympathy with all that is best and most vital in the civilization of which architecture becomes in a very real sense the embodiment.

The Committee on Education of the American Institute of Architects in its recent suggestive report insists that the architect must rank "in the class of men of culture, learning and refinement"; he must be a "creator of beauty," "an exponent through material forms of the best secular, intellectual and religious civilization of his time," besides being "an organizer and director of manifold and various industries and activities." "From these assumptions," the report goes on, "it follows necessarily that the object of architectural education must be the breeding of gentlemen of culture, learning and broad sympathies, who understand the dignity and significance of art both as beauty and as language, who are perfectly proficient in the technique of the art they follow, and who can inspire, organize and direct widely different classes of men."

These have from the first been the ideals of the Department of Architecture at Harvard. In the announcement of the Department for 1894 it was stated that the curriculum was planned on the recognition "that architecture is essentially a Fine Art, the practice of which must be based on a thorough knowledge of construction. Great stress has therefore been laid not only on continued practice in design and drawing, but on thorough instruction in the history and principles of the Fine Art of Architecture and the arts allied with it," and "courses are included which will enable the student to understand the relation of architecture to the other arts and the relation of the art of different periods to their social and political life, a knowledge without which the architect is not likely to use the forms of his art in an intelligent and scholarly manner." And again, in an article published in the Harvard Engineering Journal for June, 1902, on "Architectural Education at Harvard University," occur the following passages: "The training of an architect under our modern conditions demands a wider scope than is often realized. An architect who is really to carry forward his art requires to be an artist, a constructor and a scholar; while if he is to succeed in his calling he must also be a good business man. All these capabilities are rarely combined to high degree in any one man, hence the necessity for the development of architectural firms. But architectural education needs to take account of all these sides of this many-sided calling, and no man can rightly regard himself as a well-trained architect who has not developed his capacities to some extent in all these directions. Even if he should devote himself to one side only of his profession, whether as principal or assistant, he will need to understand and sympathize thoroughly with all these points of view in order to work to best advantage." "As an artist the architect of modern times occupies a peculiarly difficult position. In the elder days of art, in the great periods, architectural style and expression were matters of tradition. On the firm ground of this accumulated but limited experience the architect stood ready for further advance. He worked grammatically without understanding grammar, be-

cause the forms were traditional. Accomplishment was therefore a matter of national much more than of individual achievement. In our day and country we are almost without traditions, and, however much we may deplore the fact, we cannot change our circumstances. We must take our birthright as we find it. Moreover, there seems no reasonable probability that, in any appreciable future, this condition will change. There is only one thing which can be substituted for tradition and prevent our architecture from running, as it so often has, into parrot-like imitation of bygone styles or hopeless and vulgar extravagance, and that is Scholarship. A scholarly training and a scholarly point of view is the one thing which—more than all else just now—our architecture needs as a guide and a corrective. If an architect thoroughly understands the history of the forms which he is obliged to take as a starting point, if he knows what constructive conditions, what material wants, what ideal conceptions gave rise to them, if he realizes to some extent the conditions of civilization out of which they grew—and at the same time knows and sympathizes with what is best in those of his own day—he will not misuse these forms, he will not combine such as are essentially inharmonious or use for one purpose what was intended and is only truly serviceable for another and totally different one. If besides this an architect thoroughly understands the fundamental principles on which depends the beauty of the fine things of the past, if, from the constant tracing of these laws of design as exemplified in the work of Greece, of the Middle Ages, and of the Renaissance in Italy, the observance of these principles has become second nature to him, he will have no difficulty in applying them to new conditions and in inventing new forms or new modifications. This is what I mean by Scholarship in Architecture. I believe it just now to be the one thing needful."

For these reasons the required four-year curriculum of the Lawrence Scientific School in architecture has always included, besides the study of freehand drawing, of architectural design and of construction, courses in the general history of the Fine Arts, and in the development of civilization (making use of the resources of Harvard College), and three successive full courses have been devoted to the history of architecture from the point of view both of technical development and of the relation of architecture as a fine art to civilization. In these courses constructive development is also insisted upon, and the students familiarize themselves in a practical way with the various important constructive processes. In the study of vaulting the students build large scale models of Byzantine and Gothic vaults. An advanced course in architectural history has also been maintained in which each student works under guidance on some special field in which he is particularly interested. The study of ancient and modern history, of advanced French as well as advanced German, have also been demanded as prerequisites, besides the physics and the mathematics necessary for the study of construction. Unless taken at admission these studies have been required after entering the school.

In furtherance of these ideals students have always been encouraged to take the academic course in Harvard College before entering on the work of the four-year course in architecture, and the department has always contained a good proportion of college graduates. Recently the University has felt itself strong enough, in pursuit of the general policy above outlined, to establish a graduate technical school, for admission to which a college degree is required, and at the present time five young men already holding the A.B. degree from Harvard College are candidates for the professional degree in architecture—three for the new degree of Master in Architecture, which is given after at least two years of concentrated professional work following their graduation from college. The course in this higher technical school and the candidacy for its degreees are open to holders of any Bachelor's degree from a college or scientific school of good standing. This course distinctly puts the study of architecture in its right place as one of the

FIRST YEAR WORK—EXAMPLE OF THE DORIC ORDER.

FREEHAND DRAWING OF THE SECOND YEAR.

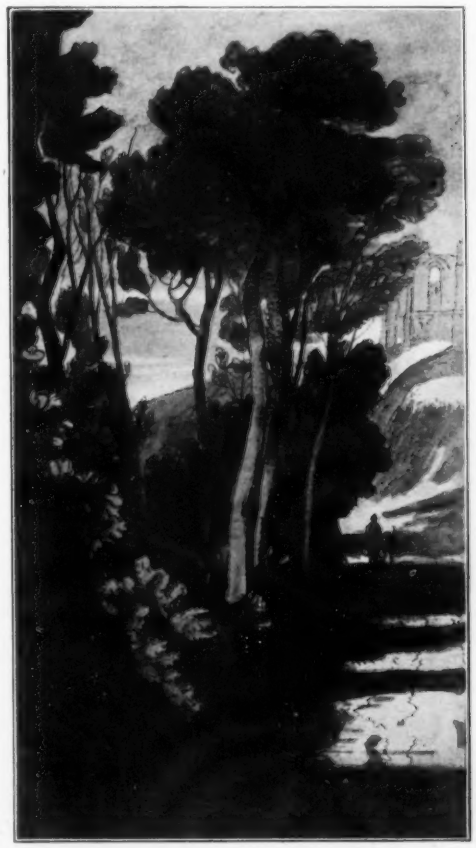
learned professions, and places the technical courses in the new graduate school on a par with the Harvard Medical School and the Harvard Law School, which also demand a college degree for admission. But the Department of Architecture, like the other Departments of the new Graduate School of Applied Science, is still in a period of transition, and for the present the four-year curriculum of the Lawrence Scientific School will be maintained side by side with the new scheme of work.

While thus insisting on a broad general training, the work is so arranged, in either of these schemes of study, that at least four years' continuous work in architectural design and in freehand drawing is demanded for the degree, besides the study of masonry and carpentry construction, elementary statics, strength of materials and structural design. The work in freehand drawing includes drawing from the cast in pencil and wash, water-color, pen and ink work, and drawing from the life. A half-year is devoted to clay modeling as an important discipline in grasping architectural detail in the round and in handling mass and light and shade.

In architectural design the first two years of work are preparatory. This work includes a thorough grounding in the orders and the elements of architectural form, lectures and exercises on the fundamental principles of design in the fine arts with especial reference to architecture, and elementary academic problems in architectural design and a training in elementary decorative design. The work is carried on mainly by problems and criticisms. The student is taught to regard not only the merely decorative quality of the forms used but their value as terms of expression. He is taught to understand the origin and meaning not only of the larger motives but of each detail, and so to appreciate that beautiful architectural forms are organic expressions of structural functions. He learns for instance the orders not as mechanical formulae but as vital and beautiful expressions of structure, and as he learns them through design he forms the habit of working intelligently and with freedom, and of attacking each new problem in a vital way. He is taught to avoid on the one hand blind copying, or merely archaeological study, and on the other capricious innovation for the sake of novelty. He is taught to regard every piece of design he undertakes as a problem to be artistically and sympathetically solved as an outgrowth of its conditions in the way that seems to him most natural and expressive; and above all he is taught to seek beauty as the main aim of all that he does.

In all the work in design the endeavor is to consider detail always in its relation to the design of the building taken as a whole, and while insisting on the importance of delicacy of feeling and thoughtful designing in the treatment of detail, to teach the student to regard the detail always as subordinate to the large

conception of the whole design, whether considered decoratively or with regard to constructive expression. In the study, therefore, of the elements of architectural form at the very beginning of the course—the orders, for instance, are studied as essential parts of the buildings to which they belong, and the study of these forms is accompanied by the designing of simple structures in which they are used. The form of good detail is thus seen to be not arbitrary or capricious, but the beautiful and appropriate expression of a structural idea. So also in the study of more advanced design, executed designs are first analyzed and the student is taught to see how the exterior of every well-designed building must be the outgrowth and expression of its plan and interior arrangement as these are of the practical conditions of the problem. This is emphasized by having the students make designs from verbal description, the programme having first been analyzed, and then at the same scale draw out for comparison with their own design the design that has been described. These exercises are rapidly done, occupy but little time and are valuable in accustoming the student to the analysis of the plan as an outgrowth and harmonious expression of given conditions and as the basis of the elevation. The advanced work in design is carried on, as in all our schools of architecture, by means of problems and criticisms. The designs are always started by eight-hour preliminary sketches made by the student without guidance or assistance. These sketches are criticized before the class and then each student elaborates his design, with such modifications as are suggested, under the daily criticism of the instructors over the drawing boards. The problems usually occupy a month or six weeks. Shorter problems lasting four or five days are also given from time to time, to widen the student's experience and to encourage rapidity in seizing and expressing an idea. The designs finally presented in the form of completely rendered drawings are again criticized before the class. The problems given are based upon actual American conditions, and while ideally treated, are founded on the practical requirements which the student will later have to meet in practice. Each problem when it is given out is made the basis of study—usually introduced by a lecture—of the requirements of buildings of the class under consideration. It is believed that this plan of work, while it increases the difficulty, gives the student more resource and facility in solving the problems he will later have to meet, than would be the case if problems of more academic character were given out, with more or less fixed types of plan, often remote from the conditions and demands of actual practice. In every way the student is helped to think of his designs as actual structures, to consider and to study their appearance when built rather



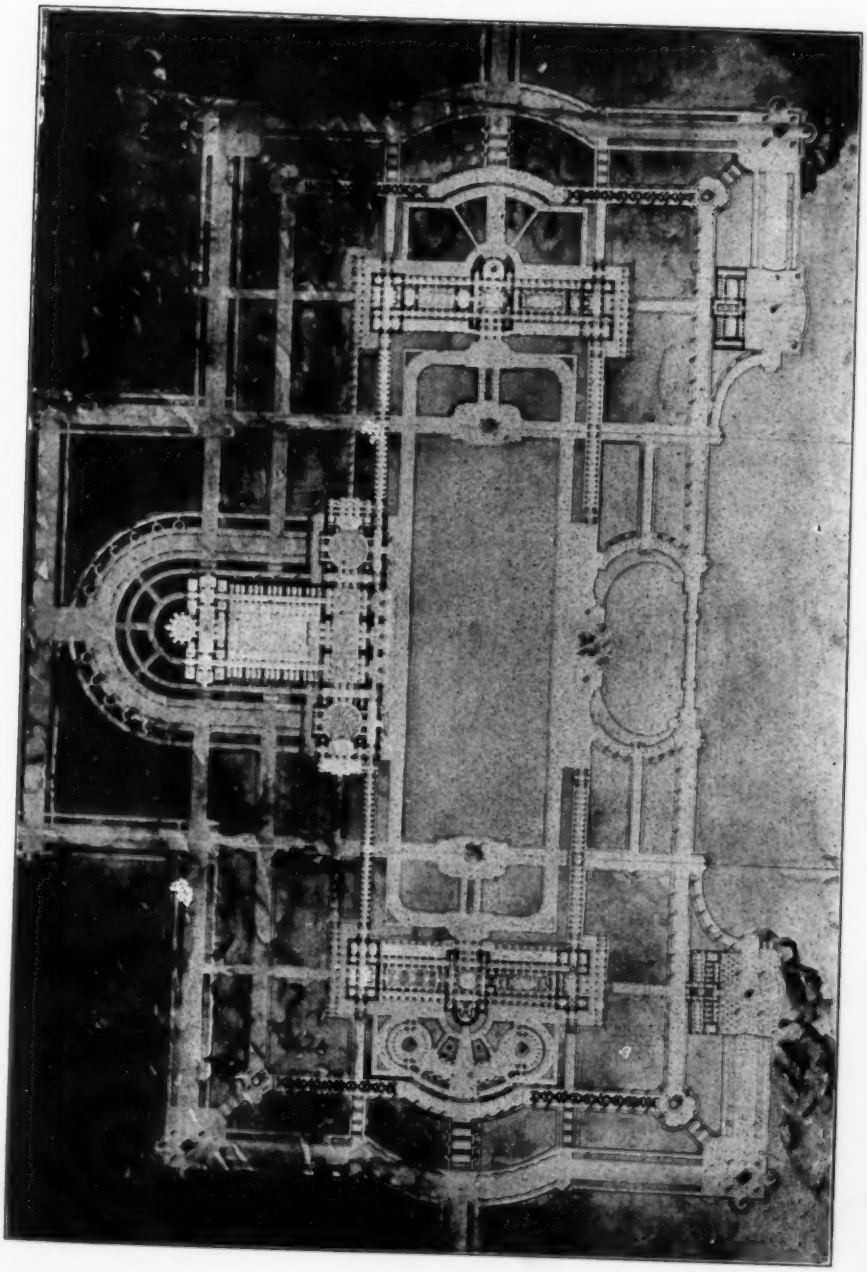
FREEHAND DRAWING OF THE THIRD YEAR.
(Copy after J. M. W. Turner.)

than to fix his attention on his results on paper. He is taught to look through the drawing to the actual building. He is taught to base his work on precedent, the best precedents are constantly urged upon his attention, and he is encouraged to use precedent freely to attain to such fresh and spontaneous expression as he is capable of and as seems appropriate to the problem in hand. To help him to some conception of actuality in the handling of his designs, the year is begun, for all except the beginners and the most advanced students, by measuring and drawing out some existing building or important portion of a building.

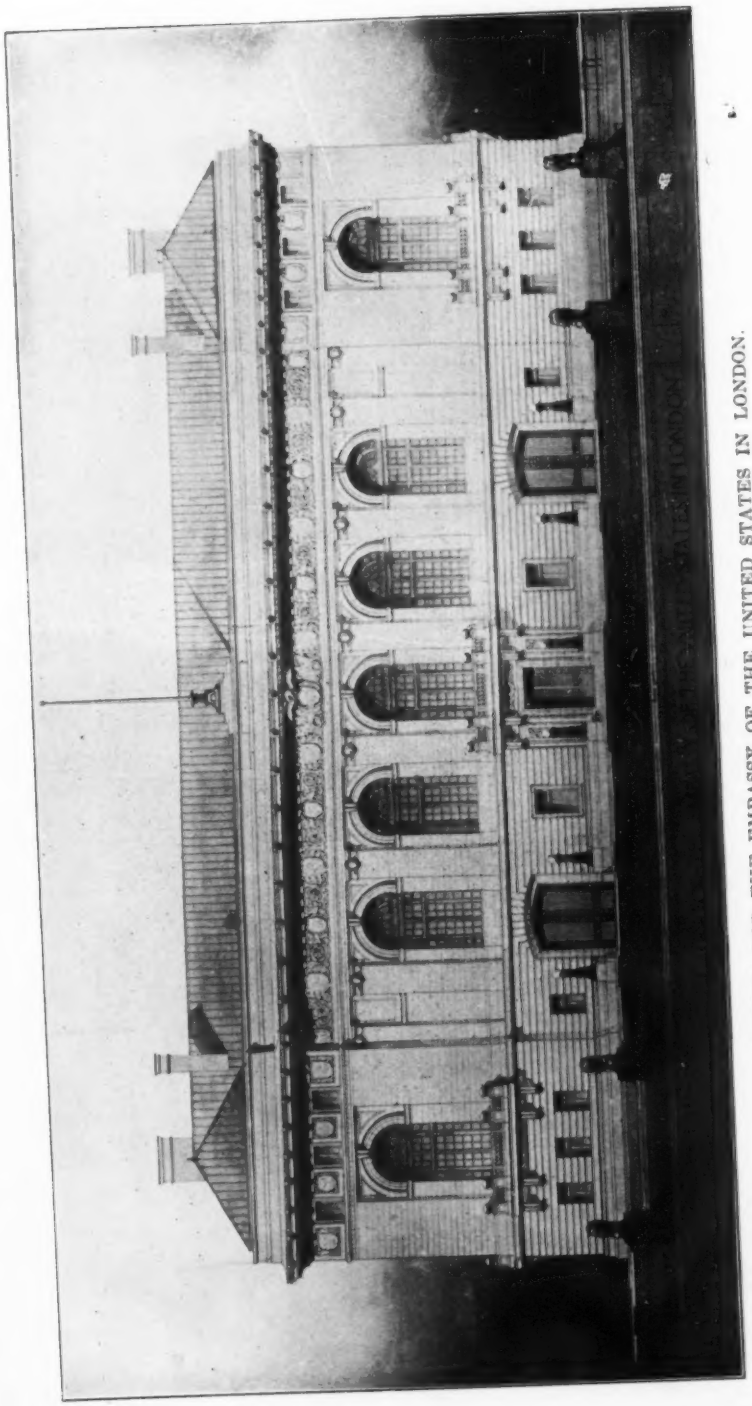
A MUNICIPAL COURT HOUSE.

The advanced work in design is carried on with the co-operation of prominent architects appointed as "Lecturers in Architectural Design," for short terms of service in rotation, who successively undertake the direction of problems. Each problem is introduced by a lecture on the general conditions and requirements of the class of buildings to which it belongs. In this way amongst other problems, school houses, university buildings, large private estates, the laying-out of city squares, city halls, town halls, hospitals and medical schools have been studied and the best solutions brought to the attention of the students. Following the introductory lecture the conditions of the particular problem to be solved are given out, and the preliminary sketches are then criticized before the class by the lecturer, who afterwards follows out in detail the development of the designs, working with the students over the drawing boards, as previously described in the case of the work of earlier years, and the final results are again criticized before the whole class. Since this method of work was introduced, Messrs. R. S. Peabody, Frank Miles Day, E. M. Wheelwright, R. C. Sturgis and C. A. Coolidge have acted in the capacity of "Lecturers." Messrs. Sturgis and Coolidge have been appointed as Lecturers in Architectural Design for the coming year. This method of work has proved exceedingly useful and stimulating and has been productive of excellent results. It is perhaps worth while to notice in this connection that the principal instructors in the Department are all practising architects.

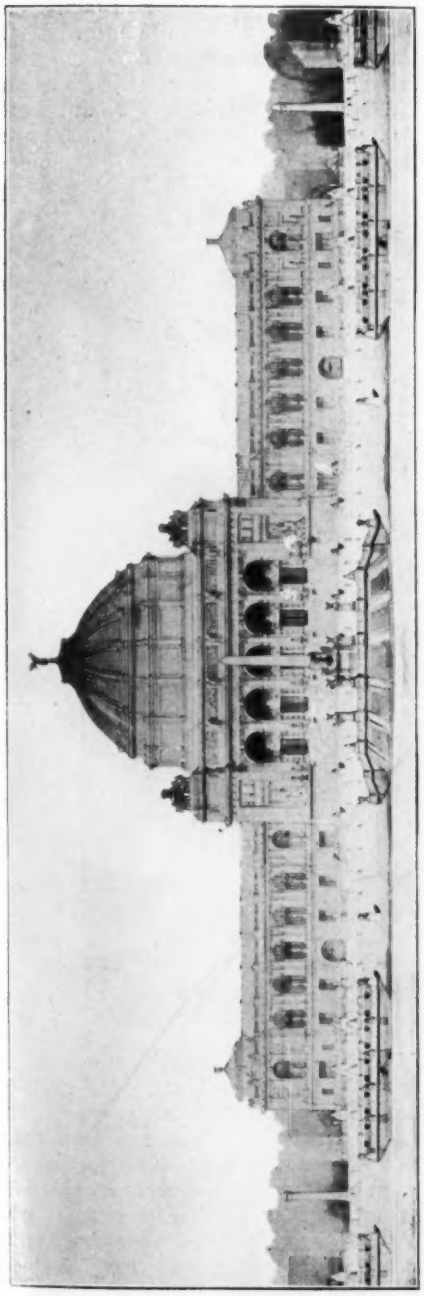
The work for the degree is finished by the preparation of a thesis design, which occupies the last four months of residence, and which is more completely



A HYDROPATHIC ESTABLISHMENT.



DESIGN FOR THE EMBASSY OF THE UNITED STATES IN LONDON.



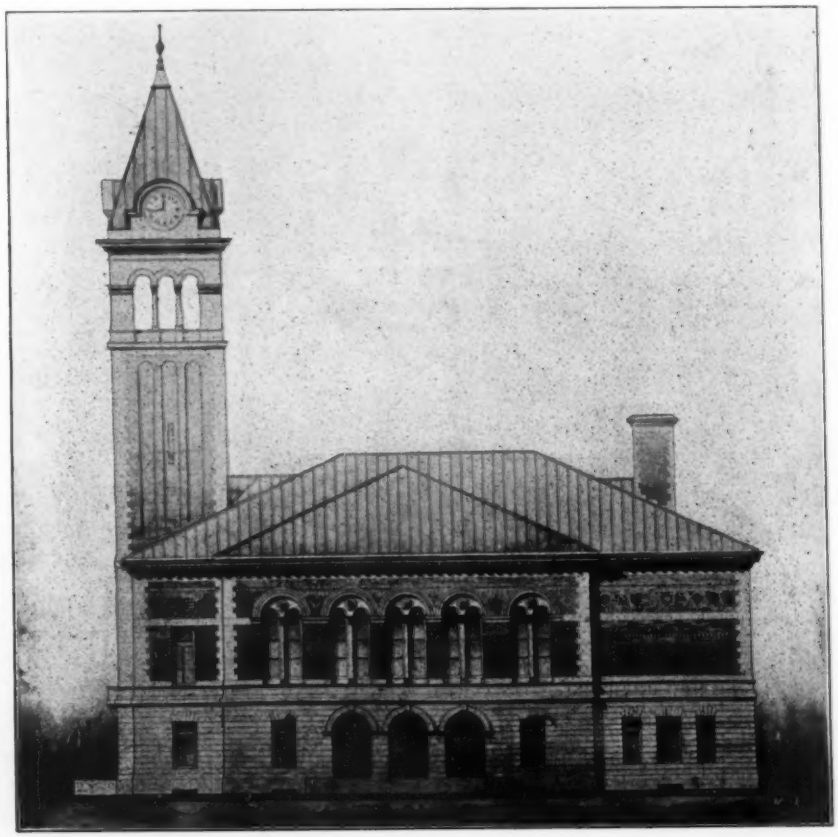
A PEACE PALACE.

presented and more thoroughly studied than the earlier problems. It is, as it were, the summing up of the student's experience. The theses of the current year include: a large summer hotel at a southern resort; a great casino; a large city house; a school of dramatic art; a church and parish buildings; a university group; buildings for a large college in the country; a boys' boarding school; a county court house. These titles give some idea of the range of problems selected.

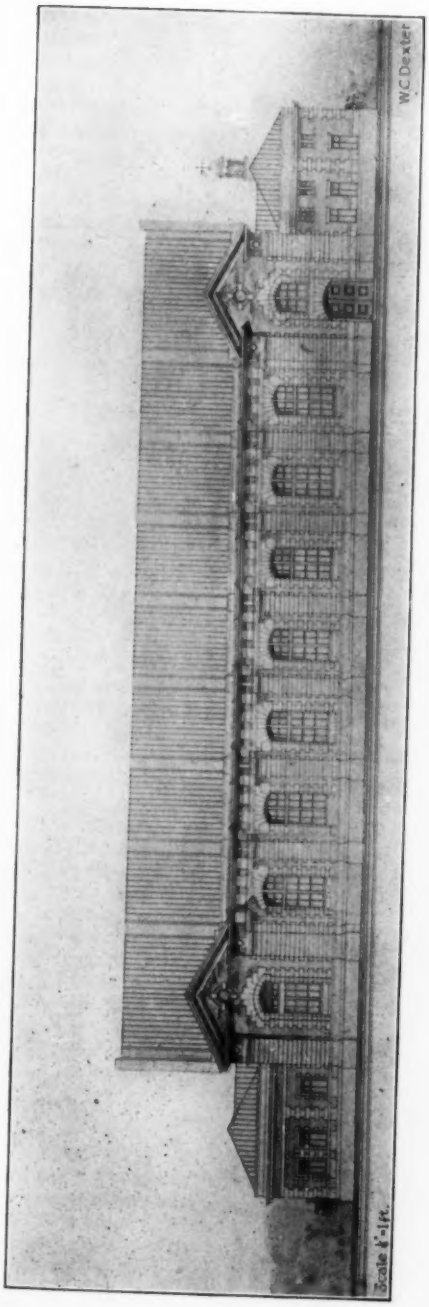
The Department of Architecture at Harvard disposes of two important Traveling Fellowships which are offered in alternate years. These Fellowships are each of the annual value of one thousand dollars, and the winner is reappointed for a second year if he has made good use of his opportunities during his first year. The awards are made on the results of competitive examinations in design and in architectural history. The examination in design, as is usual with such fellowships, consists of a problem for the solution of which three weeks are given. The Fellowship holder spends his two years of travel and study in Europe, under the direction of the Department, and he usually spends the greater portion of his time as a student of the American Academy in Rome. The important measured drawings which these students send back are stimulating and beautiful additions to the resources of the Department. There are also two scholarships awarded each year to students who have already taken the professional degree and who wish to remain for a year of advanced study for the higher degree. The Department welcomes properly prepared special students, whether draughtsmen from offices or others.

There is probably no part of the education of the prospective architect so important as the constant development of his sense of beauty, and this perhaps he gains quite as much by daily and hourly contact with the most beautiful works of past art as by instruction or the direct exercise of his own artistic faculties. It is quite certain that the constant presence of the best models, their uncon-

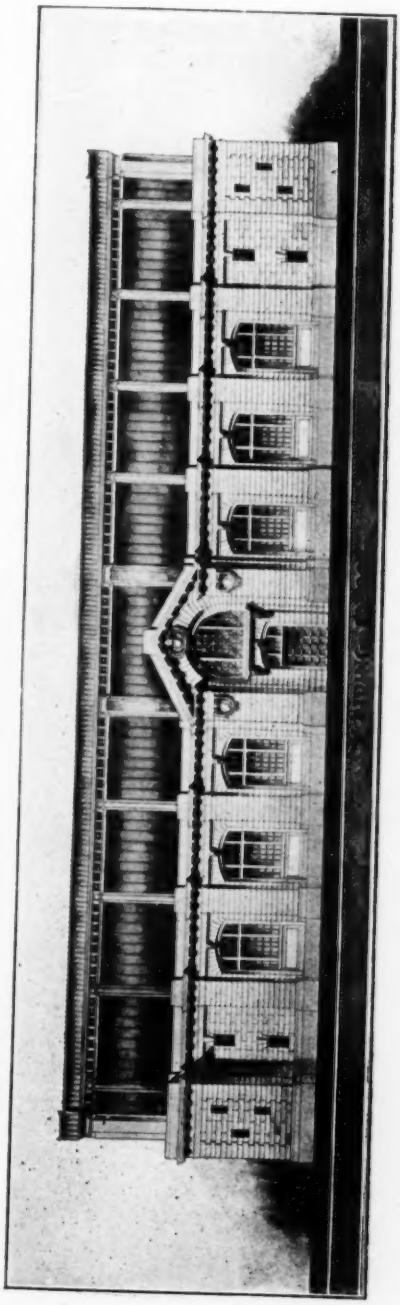
scious influence through daily sight and enjoyment, as well as through frequent study—drawing them, analyzing them—is not only a powerful stimulus to the imagination, but acts unconsciously in increasing artistic sensitiveness and raising the standard of taste. In this respect the Department of Architecture at Harvard is peculiarly fortunate. In the midst of the pleasant and inspiring surroundings of the oldest university of America it has in Nelson Robinson, Jr., Hall a building exclusively devoted to its use and admirably designed for its purposes, the work of Mr. McKim. Its Hall of Casts, which runs the entire height of the building, contains full-size reproductions of some of the most famous and beautiful fragments of past architecture. The Doric order of the temple of Theseus at Athens, one corner of the exquisite little Ionic temple of Nike Apteros on the Athenian Acropolis, the Ionic order of the Mausoleum at Halikarnassus, the Corinthian order of the temple of Vesta at Tivoli, a large portion of the triumphal arch of Trajan at Beneventum, the window and balcony from the Cancellaria Palace in Rome, the charming fountain by Verrocchio from the courtyard of the Palazzo Vecchio in Florence, portions of the choir screen of Chartres Cathedral, are some of the principal objects thus represented, besides cornices, capitals, altars and other smaller details. The collections also include a number of extremely interesting original marble fragments of Greek, Roman and Renaissance architecture. Several of the doorways in the building are reproductions of famous examples of Ren-



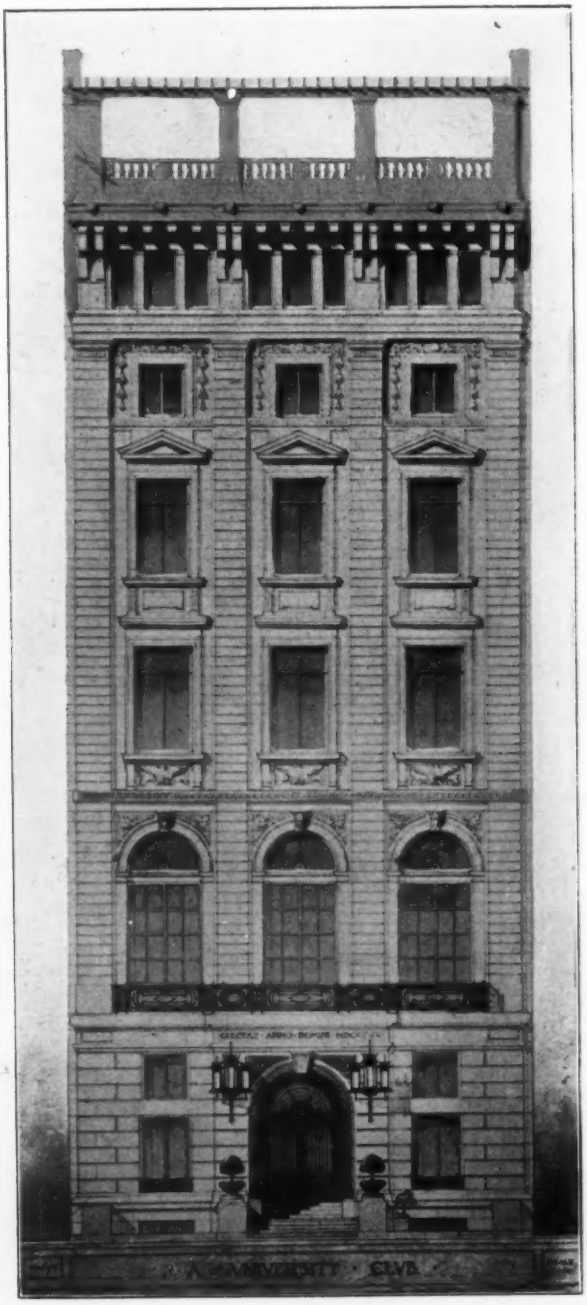
A TOWN HALL.



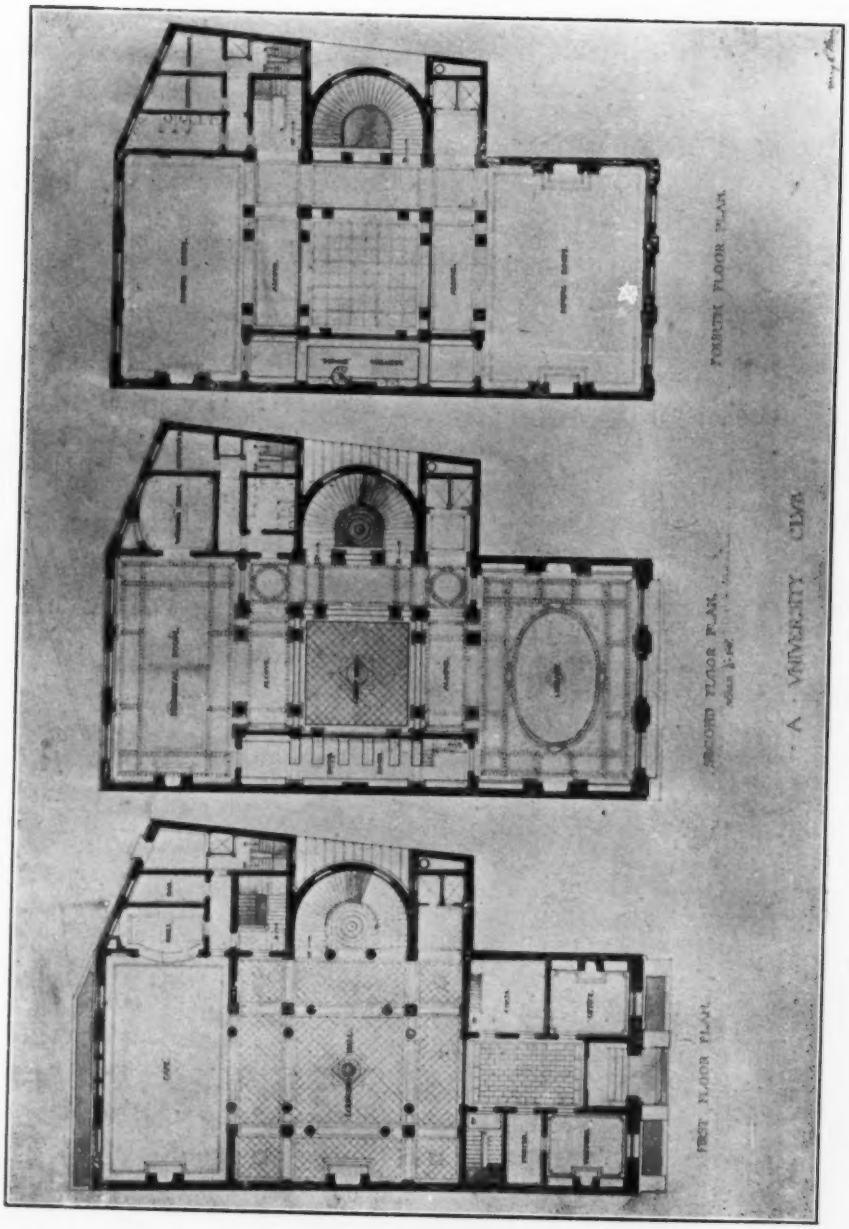
A RIDING SCHOOL.



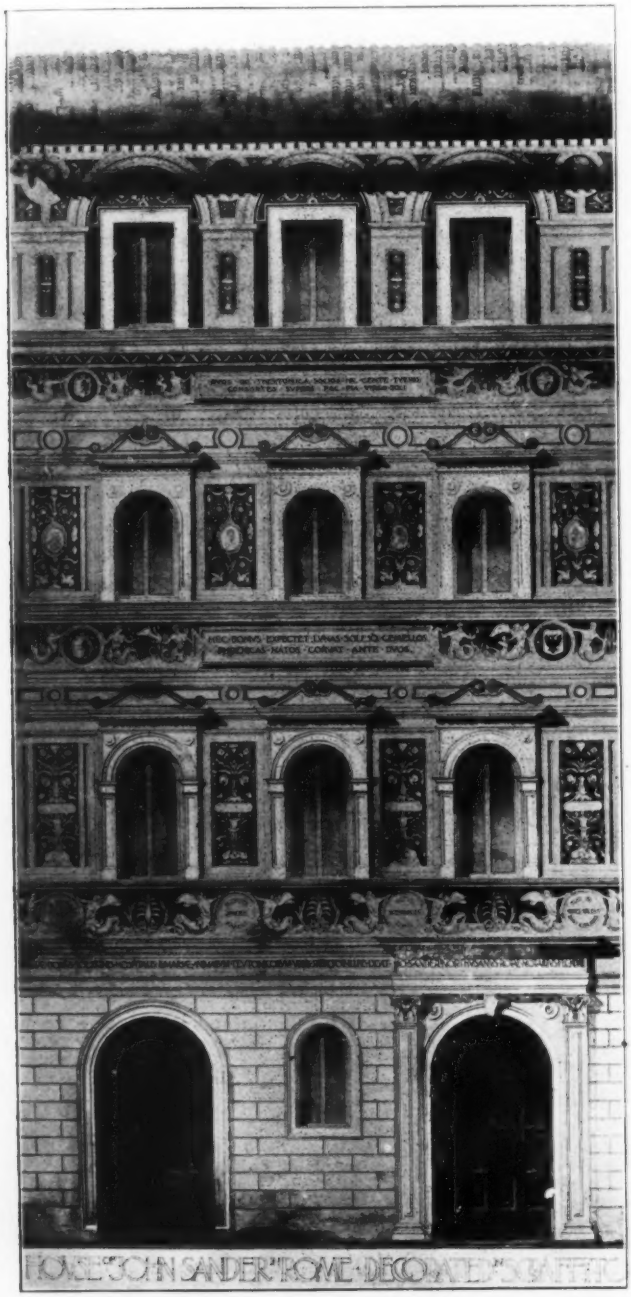
A RIDING SCHOOL.



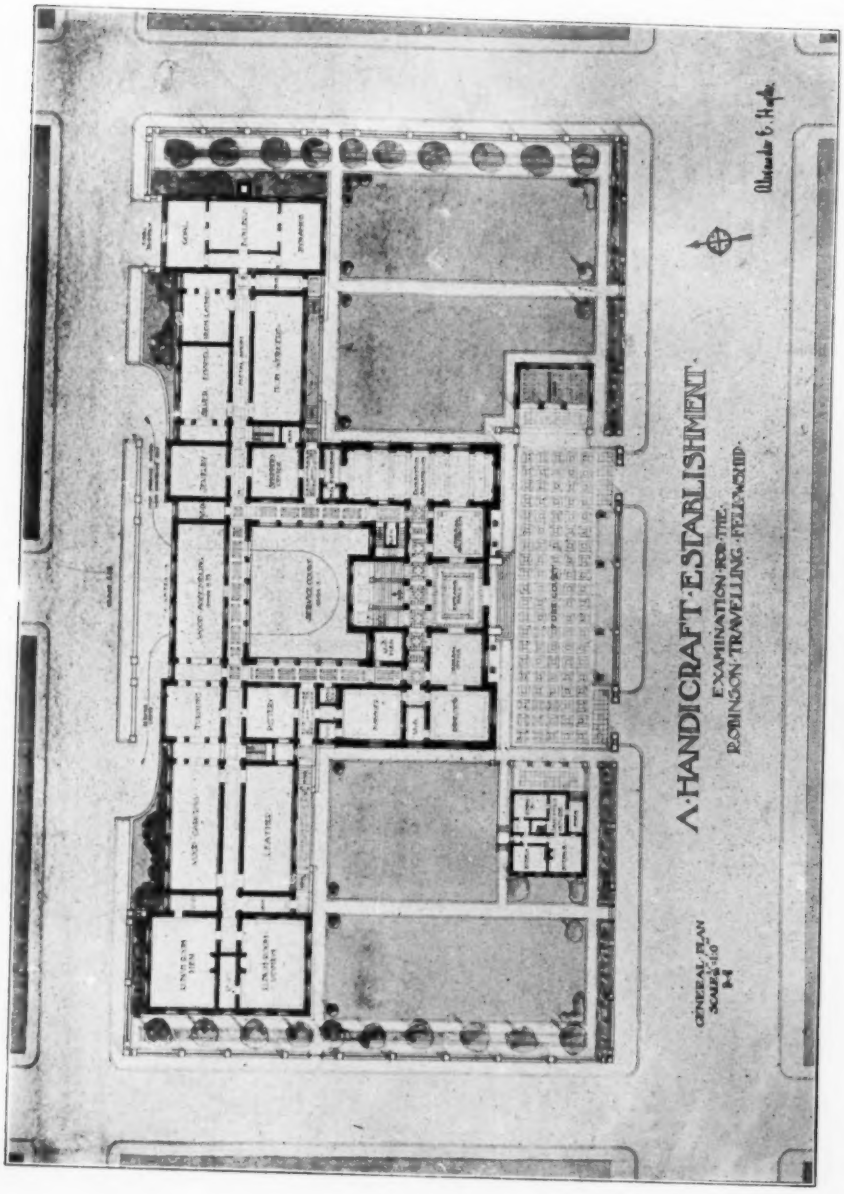
A UNIVERSITY CLUB HOUSE—ELEVATION.



A UNIVERSITY CLUB HOUSE—PLANS.



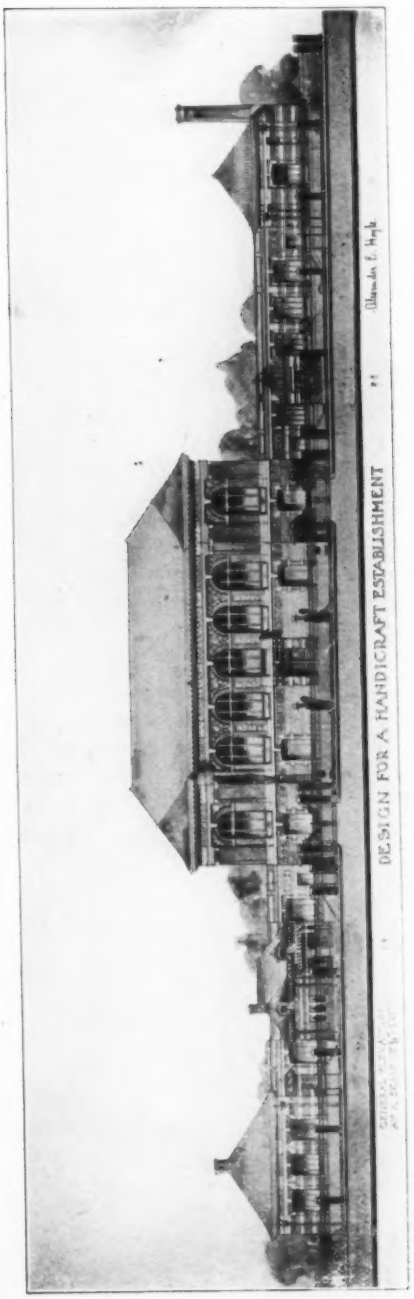
HOUSE OF JOHN SANDER, ROME.



A HANDICRAFT ESTABLISHMENT.

aissance or Classic art, and they are thus seen, not as mere museum pieces, but almost as they might be seen in the buildings for which they were designed. The freehand drawing-rooms contain casts of Gothic and of Renaissance detail, besides Eastern stuffs and bronzes, and a small but excellent collection of pencil and pen drawings, watercolors and paintings of architectural subjects, among them works by such masters as J. M. W. Turner, J. D. Harding, Prout and Cotman, besides more recent works. In the main drawing-room on the second floor, which occupies the whole length of the building, other casts and important architectural drawings are displayed. The library contains some 10,000 architectural photographs and nearly 1,400 volumes. The main lecture room is provided with two electric stereopticons placed side by side for simultaneous use in the comparison of buildings in the lectures, and there is a collection of some 8,000 lantern slides. But the collections of Robinson Hall itself are by no means all the resources of instruction and inspiration of which students in the Department enjoy the advantage. Adjoining it is the Fogg Art Museum, with its casts and beauitful paintings and its collection of 40,000 photographs of architecture, sculpture and painting, and 3,643 lantern slides. In the lecture room of the Fogg Museum the courses on the general history of the Fine Arts are given. Across the road from Robinson Hall is the Germanic Museum, with its extremely interesting and important collection of casts of German Mediaeval and Renaissance architecture, largely the gift of the German Emperor, and its large scale photographs of German architecture. The architectural building has the further advantage of near neighborhood to the University Library, which has over 8,000 works on the Fine Arts. The students make free and constant use of these collections, and from time to time books and photographs that may be specially needed in the work of the Department of Architecture are temporarily transferred to Robinson Hall. In every way the students are encouraged and aided to make the fullest and most fruitful use of these unusual resources.

H. Langford Warren.



HANDICRAFT ESTABLISHMENT—ELEVATION.
Awarded the Nelson Robinson, Jr., Fellowship, 1906.

THE OLD UNION THEOLOGICAL SEMINARY (1883).
Park Avenue, 69th and 70th Streets, New York
(Photo by J. H. Symmons.)
William A. Potter and James Brown Lord, Architects.

The Old Union Theological Seminary

The "old" buildings of the Union Theological Seminary would not be old anywhere but in America. Even in America, even in New York, they are dying rather young. Taking a generation of men for the duration of a building, they are cut off in their prime, so to say. This generalization as to the life of a building is the late James Renwick's, who remarked that the business of an American architect was to build something that would stand and be presentable for thirty years, after which date, in the ordinary course of things, its room would be more valuable than its company and it would be demolished. To architects the remark may sound cynical. But it is the mere expression of a fact—the more's the pity. In other countries the architect has assurance that his work, at least if it be of the "institutional" kind, will outlive him. In some parts even of this country he has this assurance. But in New York he has to face the probability that the institution for which he is building will take up its bed and walk whenever the land it holds either greatly declines or greatly advances in value. The former case, with our abounding commercial prosperity, is not very frequent, since there are few parts of New York where land is not worth more than it was a generation ago. Curiously, the one part which is the most conspicuous exception to the rule of advance is that in which the institutions are anchored, and the buildings of one and two and three generations ago are still extant. In the other case, the common case, business drives out residence or costly residences drive out humbler. The "electrification" of the tunnel, the benefits of which seem to some already to be fully discounted in the prices of property on Park Avenue, is probably immediately responsible for the migration of the Union Theological Seminiary. It meekly and duly follows the northwestward march of Columbia and of the College of the City of New York, but in an accelerated ratio, for the C. C. N. Y. held its ground for half a century, and the oldest, though by no means the most valuable, of the Columbia buildings for much longer, whereas the Theological Seminary has not fulfilled its generation, dating, as it does, only from 1883.

It is a great pity as to architecture, this "convulsion and disjection," for it is what Ruskin calls "building statues out of snow." You cannot get a sculptor to "sweat blood" in that way. Neither can you get an architect to take a very serious view of work which he can reasonably expect to outlive. His fashions last a little longer than the tailor's and the milliner's. But they are almost as distinctly fashions. And the aim of the architect who designs these foredoomed erections must be limited to becoming a fashionable architect, and to producing the largest number of "ephemeroi." It were a fond imagination that you can get as good work in this way as when generations of builders wrought at a single monument.

Particularly is it a pity that a building so "wrought with care" as this old building of the Union Theological Seminary should have to go. Truly a particularly ruthless fate seems to have pursued the monuments of the Gothic revival in New York. In secular work, the Academy of Design, the Brooklyn Academy of Music, the old Produce Exchange, the old buildings of Columbia in Madison Avenue and this present Union Theological Seminary were without doubt among its chief successes. Not one of them has survived its architect. The workers are with us, but their work is gone. Some of it, some of the best of it, is no longer accessible even in a photograph. It is at all events a satisfaction for the Architectural Record to prevent this latter calamity by taking and publishing a picture of the building while it yet remains.

It will be seen that Mr. Potter's work holds its own excellently, even in the exacting competition to which we have referred, with the works of Mr. Fidlitz and Mr. Wight and Mr. Haight. Al-

though the front has the unusual advantage of a whole block to itself, the project suffers from want of room. If the site had been a square of the avenue front the scheme would have been nicely accommodated, the scheme of a quadrangle surrounded by collegiate buildings, of which the chapel is, by the necessity of the case, of the chief importance. In fact, however, the depth of the plot is only some 125 feet against the 200 of frontage, and not only does this limitation entail a huddled effect in the view from either side street, an effect especially undesirable in collegiate building, but the less important buildings are by practical necessity heightened so as to tower above those superior in importance. But this is the only drawback. The Gothic revival has nothing better to show in New York than the Park Avenue front of the Seminary. So it seemed when the front was new. So it seems now, after the wear and tear of a quarter of a century.

Truly, let any one run over in his mind the cases, not so very numerous, in which an architect has had a block front to cover with an institution—that is to say, one of the short block fronts between cross streets to which the commissioners of 1807 practically restricted all architectural façades on Manhattan Island, except those highly improbable cases in which the architect had a chance at a frontage of, say, four hundred feet between one of the original and one of the interpolated avenues. There are comparatively few even of these. The Madison Square Garden possibly denotes the best architectural advantage to which one of them has been put. Then there are the frontages between the original avenues, frontages of eight hundred feet or so. These are very few, and of those which have been turned to architectural account memory at the moment retains but two, the two frontages of the General Theological Seminary down in Chelsea Square being one, and the single frontage of the Museum of Natural History up in the western eighties being the other. But, limiting ourselves to the short block front between cross streets, who can recall a happier and more sufficing treatment than that of the Union Theological Seminary? Pity, one repeats, that the architect had not room enough, deepwise, to realize completely his notion of a "rus" and also of a cloisteral seclusion "in urbe." But what an engaging and attractive front it is.

The constriction of the site which the architect of 1883 suffered in his rearward and more altitudinous erections left him at least free to put his academic buildings on his Park Avenue front. Let us rather congratulate him than pity him, upon the whole, upon his opportunity. And let us very particularly congratulate him upon the use he has made of it.

The triple division of this unusually long frontage, dictated by architectural considerations, very happily happened to come in with the practical requirements. A tier of lecture rooms on each wing, flanking the chapel, is an obvious treatment—after it has been done. And the architectural denotation of this arrangement pleasingly coincides with the architectural requirement of making the most of the unusual frontage. This latter is emphasized by keeping the wall of the basement story in one plane, without projection or recess from end to end.

One says "obvious" very much at his ease. It is obvious when it is done. All the more credit to the designer to whom it is obvious before it is done. Even the general scheme by which the desirable triple division is secured with a tier of lecture rooms at each end and the towering mass of the flank of the chapel between them is, so far as we know, without any precedent in collegiate architecture. But how very effective and impressive it is. And observe the nuances that show artistic sensibility. Remark, for example, how well the lower building at the right of the photograph is made to balance the tall gabled building at the left by the erection of the tower so much nearer the right than the left terminal of the composition. What an effective balance this arrangement gives, without the formal symmetry which has been so far abandoned in favor of an expressive treatment. If any man calls this a stroke of genius, the present commentator will be the last to quarrel with him.

The "features" and the detail follow and promote in their several degrees the effect of this lucky "lay out." The photograph gives no notion of the effectiveness of the combination of material. Collaberg brick of an excellent color, and not smoothed out of all character of texture, is employed in the fields of the walls, with the joints bevelled backward to enhance the sense of texture. To the same effect the courses of reeded bricks in the upper stages of the tower, alternating with plain, where the difference, without amounting to a contrast of color, emphasizes the sense of texture and of structure. To the same effect, also, the use of brownstone as the complementary material of the brick work. Fashions have come and gone since 1883. But the "pale children of the latter light," in so far as they themselves are artists, really have to acknowledge the artistic character of these dispositions and of these refinements, and to own that it would be a kind of public calamity to have the front in which they were exhibited disappear and be no more seen.

And, of a truth, why should it disappear? Why should it not rather be transplanted and suffer a land-change? Nobody can blame the Union Theological Seminary for "following the movement," and, with the new resources accruing at least in part from the altered and enhanced possibilities of its old site, from fulfilling its enlarged requirements elsewhere. But here is an architectural project executed and approved, "cum laude," by the experience and the wear and tear of the quarter of a century. What a pity that it should have to go! And why should it have utterly to go?

It seems a pity and a loss that it should have to go. It seems a pity that some church about to build should not refuse to see the necessity that it must go altogether, even if it has to be removed in obedience to irresistible demands of material progress. The other month we were commending the example of that intelligent and appreciative parish priest who managed out of what fragments he could secure of the demolished Academy of Design and the demolished rear of St. Patrick's Cathedral, diverse as they are in style and unpromising as the elements of an architectural amalgam, to compile, in the church of "Our Lady of Lourdes," on the upper West Side, a parish church far more interesting than he could possibly have procured at anything like the same cost, as the result of an "original design." And that was not only a reproduction, or even a compilation, but a "cento." Now here in the Park Avenue front of the old Union Theological Seminary is not only the design but the material of a "parochial plant," attainable, given the inexorable condition of a "block front," say, at one-tenth of the cost of the execution of an original design. Why should not some priest, pastor, building committee, seize this opportunity before it vanishes?

The rebuilder has even a clear chance of improving upon his original. Evidently, both for the purpose of practical accommodation and for the purpose of architectural effect, the design of the Union Theological Seminary in Park Avenue would be greatly improved by the addition of a bay on the left to the central church edifice, through the suppression of a bay of the connecting "curtain" on that side. Of course the original designer had his reasons, imperative reasons, for the curtailment of his chapel. But remark how, with this change, the reproduction of this admirable piece of ecclesiastical architecture would serve the purposes of a "parochial plant." The church, of six bays instead of five, in the central and dominating place. The rectory, parsonage, "pastoral residence" or what not on one side. The "parish house," "mission," "Sunday-school" or what not on the other. And all at a cost of transplantation of, say, a quarter of the cost of an original erection for the same purposes by overwhelming probability not so good. The opportunity is great. But the time in which to seize it is short.

NOTES & COMMENTS

WILLIAM LE BARON JENNEY

We publish herewith a short sketch of the career of Mr. W. L. B. Jenney, architect and engineer, who died June 15 last at Los Angeles: William Le Baron Jenney was born in Fairhaven, Mass., September 25, 1832. He graduated from the scientific school at Cambridge, Mass., in 1853, and entered in 1854 the Ecole Centrale des Arts et Manufactures at Paris, France. Here his career was a brilliant one, and he graduated with a diploma in 1856. It was during this period of study that an American, Richard M. Hunt, was appointed by the French Government an Inspector, and under M. Hector Lefuel designed the Pavilion de la Bibliothéque, opposite the Palais Royal. Mr. Jenney speaks of the great admiration he had for Mr. Hunt at that time, and how much he was influenced in his after-life by the success achieved by Mr. Hunt. During the year 1858 Mr. Jenney again visited France, spending a year and a half in the study of architecture and art. Upon his return to the United States, and upon the breaking out of the Rebellion, he was appointed Captain Additional Aide-de-Camp, U. S. A., and assigned to engineer duty at Cairo, Ill.; served as engineer officer on the staff of General U. S. Grant, from Cairo to Corinth, then at W. T. Sherman's request was transferred to his command and put in charge of the engineer works at Memphis. He accompanied General Sherman as member of his staff on the Vicksburg expedition; was chief engineer 15th Army Corps at the siege of Vicksburg, and continued to serve on the staff of General Sherman until he resigned, May, 1866. In the fall of 1868 he came to Chicago and began his professional career.

His first architectural works of importance were Grace Episcopal Church, Wabash Avenue, near 16th Street, Chicago; the Portland Block, corner of Washington and Dearborn Streets, Chicago, built directly after the Chicago fire, and the Mason Building.

The Chicago office buildings before the fire were poorly built, with many dark rooms, contracted halls, small entrances and few conveniences. Mr. Jenney introduced a change in his first office buildings—the Portland Block and the Mason Building. In these buildings there is not a dark room. The entrances are attractive and the halls commodious and light. The Mason Building is a very good type of the Renaissance style that then prevailed.

Mr. Jenney's most important work, and for which he is best known, is the invention and first application of the skeleton construction, now in such general use for tall buildings throughout the country.

In the fall of 1883 Mr. Jenney was appointed architect for the Home Insurance Company of New York City, and instructed to prepare designs for a tall, fireproof office building, to be located on the northeast corner of Adams and La Salle Streets, Chicago, to be named "The Home Insurance Building," with the further instructions that the

plans above the second story should provide for the maximum number of well-lighted small offices. The instructions further stated that the building committee were aware that this would necessitate very small piers—smaller, probably, than were admissible if of ordinary masonry construction unless, perhaps, in the upper stories.

The architect was requested to report to the building committee the method of construction that would satisfy the requirements for stability and for small piers. It naturally followed that if brick or stone were insufficient to carry the loads on the piers, a material must be provided that would support a greater load per unit of section. Architects had often been obliged to build an iron column into the masonry pier where the load was exceptionally great. Mr. Jenney had done the same thing, building iron columns into the small piers some years before. The natural solution of the problem was to inclose an iron column within each of the small masonry piers, thus satisfying the three requirements, small piers, strength and fireproofing.

The question of a column 150 feet high, under the extreme variation of temperature, say 100 degrees Fahr., or more, from the hot sun in summer to the excessive cold in winter, now presented itself. A solution was soon found by Mr. Jenney, by supporting the walls and floors of each story independently on the columns, thus dividing the total movement into as many parts as there were stories, the expansion and contraction in no one story was of sufficient importance to require special consideration. The drawings were then prepared and the first design for a fireproof skeleton building was made and presented to the building committee of the Home Insurance Company for their acceptance. As business men, they naturally inquired: "Where is there such a building?" The architect replied: "Your building at Chicago will be the first." This naturally suggested the company the very important question: "How do you know it is good?" The architect proposed to submit his designs and calculations to one or more bridge engineers of distinction, as the company might select, the design for the skeleton building resembling, in many respects, iron railroad bridges standing on end, side by side.

The columns in the Home Insurance Building were of cast iron. The riveted columns of plates and angles were at that time thought too expensive. It was in this building that the first Bessemer steel beams were used, manufactured by the Carnegie-Phipps Co., who stated at the time that the Home Insurance Building was the first in the United States to use steel beams in its construction. It not only introduced the steel skeleton construction to the world, and was the first building in America to use steel beams in its construction, but it also added a long list to the requirements of a fine office building, such as wind bracing, thorough fireproofing, rapid running and safe elevator cars, light and well-ventilated rooms and corridors, fan lights along the coridor side of the rooms, adding to the light of the corridor and to the ventilation of the rooms, electric plant, the offices provided with tile vaults handsome in their appointments, a system of plumbing of the highest modern type, a large, elegantly-appointed toilet room on one of the upper floors in constant charge of a janitor, a barber shop, etc. All these appointments are now common to all good office buildings, but they were first used in the West in the Home Insurance Building, and many of them, like the metal elevator cars and the office vaults, were invented by Mr. Jenney for that building.

In 1897 Mr. Jenney received the following letter, which establishes his claim as the inventor of the skeleton construction:

BESSEMER STEAMSHIP COMPANY,
26 Broadway, New York.
F. T. Gates, President.
February 13, 1897.

Mr. W. L. B. Jenney, Home Insurance Building, Chicago, Ill.

My Dear Sir:—With your permission we shall take pleasure in naming a ship now being constructed for us by Messrs. F. W. Wheeler & Co., Detroit, Mich., the "W. L. B. Jenney," as a mark of our appreciation of your distinguished services in connection with the invention and introduction of lofty steel skeleton construction of buildings.

Yours very truly,
(Signed) F. T. Gates, President.

Among other prominent buildings built by Mr. Jenney while associated with Mr. Mundie are the following:

Union League Club, Horticultural Building at Columbian Exposition, The Fair, Siegel, Cooper & Co.'s store, the Association Building, the New York Life Building, Chicago National Bank Building, the Trude Building and the Fort Dearborn Building.

The last work in which Mr. Jenney was actively interested was the designing of the Illinois Vicksburg Memorial, a monument constructed by the State of Illinois on the battlefield of Vicksburg. Mr. Jenney was naturally very much interested in this work, having taken a very active part in the siege.

At the time the monument was dedicated Mr. Jenney was, unfortunately, too ill to attend. Mr. Mundie took up the work where it was left by Mr. Jenney, and carried it on to a successful completion.

Among the architects and engineers who had early training with Mr. Jenney, are D. H. Burnham, William Holabird, Martin Roche, D. E. Waid, A. H. Granger, H. V. D. Shaw, J. M. Ewen and L. E. Ritter.

In the spring of 1905 Mr. Jenney retired from active practice and concluded to make his permanent residence in Los Angeles. The business has been carried on under the firm name of Jenney, Mundie & Jensen by Mr. W. B. Mundie, who has been associated with Mr. Jenney for twenty years, and by Mr. E. C. Jensen.

THE INTEGRITY OF THE SPECIFICATION

We present herewith a recent ruling of the Supreme Court of the State of New York, relating to the integrity of the architect's specification. The ruling grew out of a suit brought by a contractor and was defended on the ground of failure to obey the specifications. In the trial court the contractor's right to substitute another sash cord for the one called for by the architect was upheld.

The plaintiff testified as follows: "Samson Spot Braided Cotton Sash Cord although called for was not used, but the ——— ——— Cord substituted because as the contractor testified: " 'I never heard of Samson's Cord. I did not know anything in regard to the two different kinds of cord. The kind of cord I use, ——— ———, is considered the best on the market. I did not know anything about Samson's and I know the ——— ——— is good." Another witness called by the plaintiff testified: "That the cord used is good quality sash cord and is the same as is used on the eastern end of Long Island. As compared with Samson I do not know how they would compare in cost." The architect testified that the cord used was not durable and that it was already partly worn out, while that called for in the specifications is strong and durable.

The Supreme Court ruled as follows:

"We have set forth some specimens out of more than twenty admitted failures to comply with the specifications and at the same time have given in substance the reasons of the contractor for the omissions. The contract was not substantially performed in all respects and there is no evidence to support the finding of the trial court that it was. There is no substantial performance when no attempt is made to comply with certain express requirements of the specifications and no excuse or explanation is given for the failure. A contract is not substantially performed by substituting for that which is expressly required, materials, methods of workmanship which, in the opinion of the contractor and his experts are "just as good" unless the substitution relates to a matter of minor importance is made in good faith and for sufficient reasons, and there is an adequate allowance for the difference. The owner has a right to what the contractor agreed to give him, and unless he has it or when the failure is neither wilful nor substantial, is fully compensated for the omission, there is no substantial performance and there can be no recovery. It is not sufficient for the contractor to build a house, but he must build the house contracted for and substantially comply with the specifications as to the method of construction, materials and workmanship before he is entitled to payment. In the case last cited, we said: "The contractor may not deliberately violate his contract by the use of earthen construction instead of iron and small pipes instead of large ones, and yet claim that he has done as he agreed because the result is just as good. Unless the owner had the right to contract for what he wanted and to get what he contracted for, there was no use in making the contract. A building contract like any other is to be fairly performed according to its terms, and any substantial change, unless authorized by the owner or architect, is made at the risk of the contractor. In order to avoid injustice the law tolerates unsubstantial deviations made in good faith, but it exacts full compensation therefor and permits a recovery on the theory of substantial performance only after the proper deductions have been made. The contractor had no right to substitute his own judgment for the stipulations of the contract, or to recover on the basis of complete performance when * * * he wilfully and intentionally used inferior and less expensive materials in the place of those agreed upon."

ART GALLERY FOR PHILADELPHIA

A recent suggestion of Mayor Reyburn, of Philadelphia, has been received with considerable enthusiasm by many citizens. It is that the city shall build a splendid art gallery on the eminence now occupied by the Fairmount reservoir and dominating the western end of Fairmount parkway.

The site is of little value to the waterworks, but of great aesthetic potentiality to the city, while the municipality has in hand a million dollars which can be used only for an art gallery. The Welsbach collection, now in Memorial Hall, would make a nucleus for a permanent collection, and it probably would be easy to secure loans and temporary exhibitions. But in a popular and municipal sense the great gain would be the scenic, in this crown and terminus to the parkway.

CHICAGO LAKEFRONT LEGISLATION

At last Chicago, in the magnificent improvement of the splendid lakefront—to which the last obstacle seems to have been removed—is coming into her own. And when she does, she will have something which in degree can be likened by no other city. Four bills were passed by the legislature in May to make possible the proposed boulevard that is to connect the north and south sides by means of the lakeshore. Two of them gave to the Lincoln and South Park boards respectively authority to issue bonds for its construction, the other two gave the authority for the construction of the elevated structure and its approaches that are to complete the link. The city had already appropriated in the current budget $400,000 for acquiring real estate that would be needed for the purpose. The main credit, it is said, for the preparation of these bills and for effective work in securing their passage was due to the Commercial Club. If so, it is a feather to be long and proudly worn in the Club's cap. In admiration of the spectacular effectiveness of the improvement there has been widely overlooked, by the way, the sociological importance of the fact that on one side, for its whole length, Chicago will be absolutely bordered by a beautiful pleasure ground. To secure, in one short season, the carrying out of these plans and the improvement of her dilapidated old trolley system would seem—even in Chicago—almost too good to be true, did one not realize how long and how tireless had been the preceding efforts.

AN ENTHUSIASTIC MAYOR

Municipal art enthusiasts in Philadelphia have been enjoying a good many surprises in the last few months. The present mayor, who had not been conspicuous as one of their number, gave them the first surprise by running on a city beautiful platform; and consequently when he was elected, municipal art enterprises, long and patiently argued for and written of, began to take visible shape with a rush. The parkway developments are a conspicuous example of this. The prompt enactment of the bill allowing the city to buy property on the edge of an improvement, that the improvement's cost may be at least partially recouped by resale after the consequent advance in value, is another. It all goes to show, as events in some other cities have already shown, that when municipal improvement becomes popular, the politicians will take it up, and then accomplishment will follow upon accomplishment as long as the money holds out. The trouble then will be too much rapidity rather than too much deliberation. In May the City Parks Association of Philadelphia gave a reception to the Mayor—to this pass had things already come; and it was there stated that the half million dollar loan, which had just been created for small parks, was the first dedication of public moneys in a full generation in Philadelphia for open spaces in accord with a general scheme. The Mayor made a rousing speech in reply, presenting many strong arguments for the small parks, and putting himself on record as also favoring an improvement of the Delaware and Schuylkill river fronts.

REVERENCE FOR ANCIENT GLORY

A correspondent of the Boston "Transcript," apropos of a discussion of further changes in the State House, has recorded at some length the measures taken in other countries to preserve ancient and artistic monuments and works of art. Aside from appropriations for the acquisition, preservation, restoration and repair of such remains; and aside from the well known laws of Italy and Greece, against the export of objects of ancient art without government permission—all of which he mentions—various interesting measures are recorded. The Italian government is preparing a general catalogue with descriptions and photographs of all ancient historical buildings. In Greece every person is forbidden to destroy, alter, or repair ruins or any ancient monuments without the special permission of the inspector-general of antiquities, who is authorized to undertake necessary repairs at the expense of the state. In Bavaria the board of trustees of artistic and ancient Bavarian monuments is composed of six members, of whom one is an architect, four are authorities on the history of art, and one is an artist. In

Sweden and Norway the law provides that "all fixed remains which preserve the memory of the ancient architects of the country are placed under the protection of the law and may not be injured or destroyed by the owner of the land" etc. Austria, France, Spain, Belgium, Holland, Switzerland and Denmark have taken action in which the architectural emphasis is only less marked, or they have at least commissions of historians and artists who are held responsible for preserving the remains of the glory of the past.

A PERMANENT PLAN COMMISSION

A bill passed by the Connecticut Legislature in the late spring established a permanent Commission on City Plan for the city of Hartford, and conferred upon it very broad powers. The act, in doing this, established also a precedent, so that other cities in the State may demand a similar commission. The commission is composed, by the act creating it, of "the mayor, who shall be its presiding officer, the president of the board of street commissioners, the president of the board of park commissioners, the city engineer, two citizens, neither of whom shall hold any other office in said city government, one member of the board of aldermen, and one member of the common council"—the two latter being appointed by their respective boards, and the two "citizens" by the mayor. It is required that "all questions concerning the location of any public building, esplanade, boulevard, parkway, street, highway, square, or park shall be referred to the commission" by the common council for "consideration and report before final action is taken on such location." Other matters "may" be referred to the commission, the council may delegate to it such powers as the council deems necessary, and the city acting through the commission may condemn and take any amount of property within its boundaries. Such land as is not needed for the improvements, after they have been completed, the city may resell, "with or without reservations, concerning future use and occupation of such real estate so as to protect public works and improvements and their environs, and to preserve the view, appearance, light, air and usefulness of such public works." The commissioners serve without pay, but their expenses are to be paid, and they may employ expert advice. This gives the most sweeping powers of any act of its kind—and they indeed are few—in the United States. It is exceedingly significant.

RE-PLANNING MONTREAL

There have been published the plans for the improvement of Montreal, as these have been worked out by the Standing Committee on Civic Improvements of the P. Q. Architects' Association. The committee, which was appointed only a year ago, consists of Percy E. Nobbs, incumbent of the chair of architecture at McGill University, chairman, Edward and W. S. Maxwell and J. Rawson Gardiner. The purpose of the committee has been to work out a practicable scheme for the improvement of the existing city-plan, rather than to picture the conditions in an ideal Montreal. The city has a noble site naturally; but in its plan it has the faults of a comparatively old city. It is, in fact, one of the few municipalities in America which still bear the compressing mark of surrounding fortifications. There are, however, some wide thoroughfares, and the committee has been able, by planning short connecting links between these, to lay down continuous avenues that will be adapted to a traffic heavy in volume and in bulk, that will avoid a direct ascent of the steep hills, and that will offer noble or lovely vistas at their ends. Two diagonal thoroughfares are planned from Victoria Square, the most congested center of the city. One runs generally eastward and the other generally westward, the latter, with St. James Cathedral on its axis, passing the station of the Canadian Pacific railroad and thus directly connecting that with the business district. By good fortune it happens to be possible to carry these diagonals through property that is now for the most part vacant, or only poorly built upon. The plans also provide for improved park approaches and entrances, and for a wide street along about a third of the total riverfront. They are modestly put forward, as suggestive rather than final; but the report urges the economy of prompt action.

EUROPEAN GARDEN CITIES

An illustrated pamphlet, only a little smaller than this magazine, entitled "Garden Suburbs, Villages and Homes," has been issued by the Copartnership Tenants' Housing Council of London. It comes from the Garden City Press, Ltd., and is an account of the Garden City and similar enterprises and an appeal for their support. There is considerable in the pamphlet that is of no value to an American, such as letters of appreciation from members of Par-

liament, but there is a good deal more that is of much interest, especially the figures. Statistics, there included, of the movement in Germany are more impressive than those regarding it in England. Not only is much more building land publicly owned in Germany than in England, and not only do the German town authorities have, and exercise, the right of making a general scheme of development for the environs; but every encouragement is given to "Building Societies of Public Utility," as such organizations are there called. The pamphlet declares that a year ago there were 715 of these societies in Germany, with 115,000 members. One of them, in Berlin, had nearly eleven thousand members, 1,654 dwellings, and a capital of £1,250,000. A list of ten existant societies of this sort in England is given, all established within a few years, and it is said that "societies are now contemplated at Birmingham, Berkhampstead, Brighton, Cardiff, Oxford, Swansea and Hampstead." It is interesting to know that at Garden City the following factories are in operation: one for motor cars, one for photographic sundries, an asphalt manufactory, a printers', and a gas fitters'; while in course of construction are a publishers' and a Swiss embroidery establishment, and a site has been taken for a book bindery. Thus the scheme, with all its artistic and sociological possibilities, is by no means visionary, industrially.

CIVIC CENTERS

An interesting suggestion by Ex-Mayor Dunne of Chicago was made in connection with the proposition for a new City Hall. It is that local bureaus be centrally located in the north, west and south divisions. The idea is to include the payment of water taxes and licenses at the bureau stations for the convenience of citizens, maintaining only the principal executive officers in the City Hall. While the convenience of the citizens is the main argument, several incidental advantages suggest themselves. The demand for room in the main City Hall now almost overwhelming in a large city, would thus be very considerably diminished. There would be the less excuse for erecting such structures as Philadelphia's. Though more land might have to be bought, it would be cheaper land than the additional space in the center of the city, where is the main City Hall. That is, the saving in buying a smaller site there would doubtless buy all the land needed for the local bureaus. Finally, these local halls would make easier the formation of neighborhood civic centers—a very desirable outcome. In this connection, it may be noted that a writer in "The Village" a few weeks ago, justly remarking that "the movement for civic centers is as important for towns as for cities," described one at Ashburnham, Mass., as of unusual harmony in development and exceptional utilitarian effectiveness. The buildings are the public library, Cushing Academy and the lately constructed Fairbanks Memorial building, and Adams school. These, "developed with wise care architecturally," are located on a site that has been treated in harmony with them and that makes "a fitting setting for the buildings which figure so prominently in the educational civic life of the village." He says, "the result is in marked contrast with villages which present in their public buildings a scattered architectural medley, with no setting and with no supporting relationship." There is no more encouraging sign, both in its concrete promise and in its evidence of the sanity and worth of the larger movement, than this tendency, now constantly growing, of the small town to follow the lead of the big city in consciously planning for civic beauty.

THE ARCHITECTURAL LEAGUE OF AMERICA

Under date of June 26 we are requested to announce to all architects and members of the Architectural League of America that at the Executive Board meeting, held in Toronto on June 19, the permanent headquarters of the Architectural League were established at 729 15th Street, N. W., Washington, D. C., and that Mr. H. S. McAllister, ex-Secretary of the Washington Architectural Club and now Vice-President of the same, was appointed permanent Secretary of the League. All communications with the League may henceforth be addressed to Mr. McAllister at the above address.